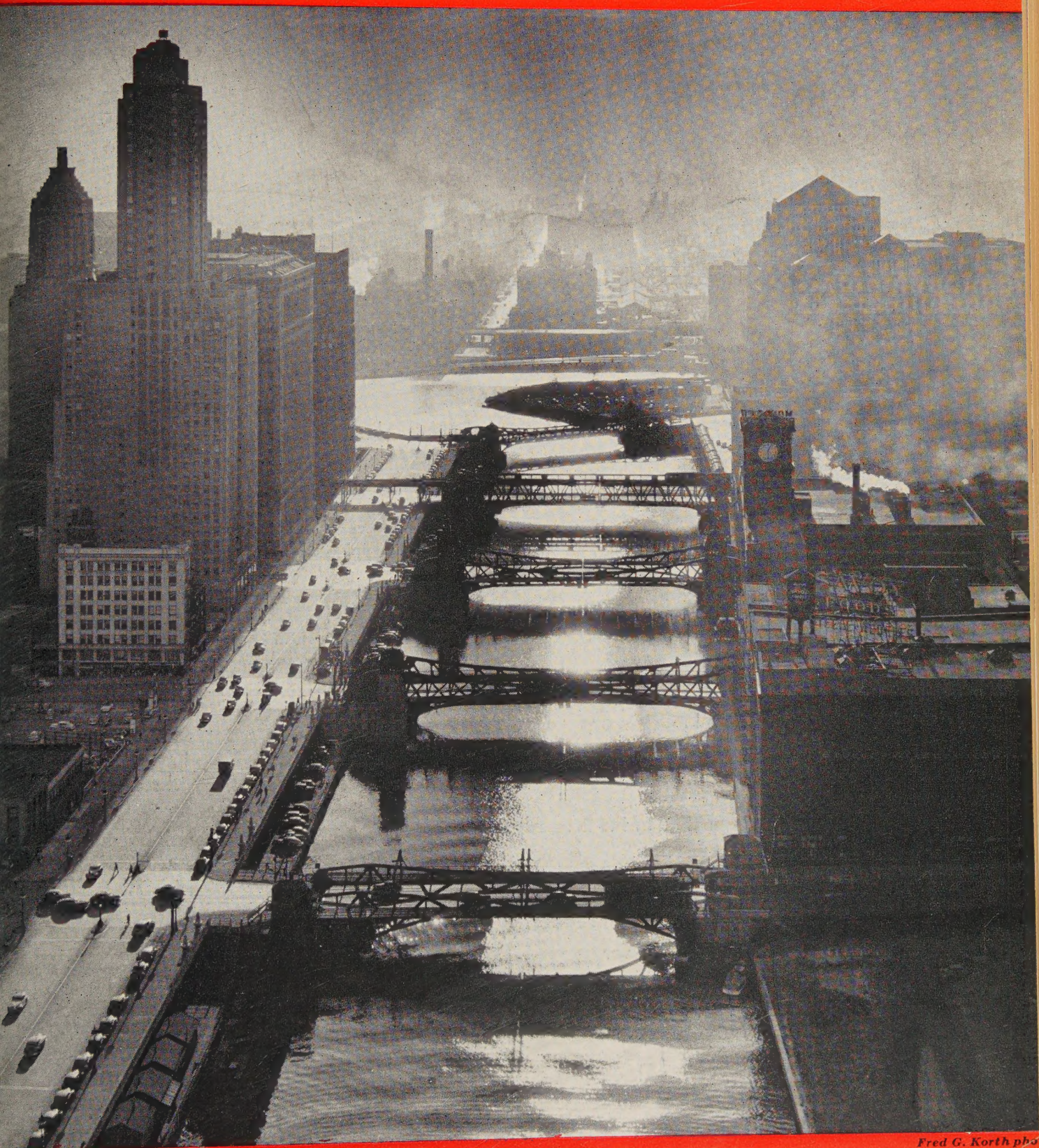


COMMERCE

M A G A Z I N E

MARCH, 1948

25 CENTS



Fred G. Korth photo

COMMERCE'S ANNUAL SURVEY OF CHICAGO BUSINESS — page 29



**You are
INVITED
to Inspect**

CHICAGO BELTING

IN OUR PLANT here in Chicago you can see CHICAGO BELTING Leather Belts being made every day of the week, starting from high stacks of top quality selected Belting Leather, through the numerous operation to the inspection of the finished leather belts of various sizes.

We are proud of our plant and workmanship and always glad to show interested people just how our belts are actually pieced and put together from leather of many steer hides. You'll see for yourself

the care and precision put into each belt by skilled workmen—how our belts are TENSION WELDED—a method cementing double belting under tension removing surplus stretch—how the laps are cemented under our own patented process, assuring strength and uniformity. Then inspect the belts as they come through in the finished roll.

After going through our plant you'll understand why CHICAGO BELTING, produced by our modern manufacturing methods, assures CONTINUOUS OPERATION WITH MAXIMUM POWER TRANSMISSION AT PEAK LOADS—UNIFORM FLOW OF POWER AT TOP EFFICIENCY AT MINIMUM MAINTENANCE AND REPLACEMENT COST.

LARGEST MANUFACTURER OF LEATHER BELTING IN THE WEST

CHICAGO BELTING COMPANY

MANUFACTURERS OF LEATHER BELTING AND LEATHER PACKINGS

GREEN & WASHINGTON STREETS, CHICAGO

Write today for our Data Books, call phone Monroe 5050 and have a talk with one of our Sales Engineers

*The Seed Has Been Sown
but the harvest is not yet*



THE SOWER

Only by intensive cultivation of the field can the advertiser reap the harvest sown by the national campaign.

For after the agency has done its job, the client still has to merchandise the campaign.

That means extensive sales promotion—

**dealer help direct mail
mail sampling and couponing
premium mailing
contest judging
mass imprinting and addressing**

No advertiser is staffed nor equipped to handle these complex operations.

Donnelley is . . . both in planning and execution.

We're as close as VICTory 3232.

DIRECT MAIL DIVISION

THE REUBEN H. DONNELLEY CORPORATION

350 E. 22nd St. • VICTory 3232

Chicago, Illinois

UNITED

has more

flights from

CHICAGO

than any other

airline!



21 Mainliners daily
to "all the East"—including
New York, Washington,
Boston and Philadelphia.

17 Mainliners to "all the West"—
including Denver, Salt Lake City,
the entire Pacific Coast and Hawaii.

Wherever . . . whenever you
want to go, call United first!

the Main Line Airway takes
you nearly everywhere

• • •
Monroe and Wabash
(Palmer House Corner)
or Stevens Hotel Lobby
Call Franklin 4900
or an authorized travel agent

UNITED

AIR LINES

"CHICAGO'S OWN AIRLINE"

STATISTICS OF

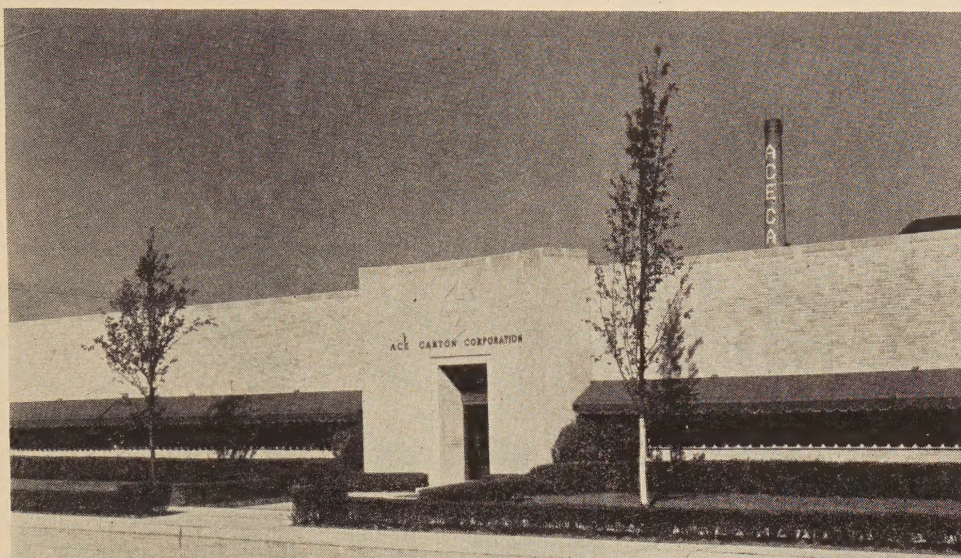
CHICAGO BUSINESS

	January, 1948	December, 1947	January, 1947
Building permits	298	540	281
Cost	\$7,587,600	\$9,652,600	\$5,615,400
Contracts awarded on building projects, Cook Co.	820	732	1,240
Cost (F. W. Dodge Corp.)	\$22,398,000	\$25,041,000	\$17,909,000
Real estate transfers	5,523	6,054	5,392
Consideration	\$6,591,513	\$7,557,567	\$10,305,932
Retailers' Occupation Tax collection, Cook Co.	\$9,553,134	\$7,932,957	\$8,694,430
Department store sales index (Federal Reserve Board) (Daily average 1935-39 = 100)	191.3 ¹	393.2	179.0
Bank clearings	\$3,398,633,498	\$3,445,539,494	\$3,002,207,435
Bank debits to individual accounts: 7th Federal Reserve District	\$16,421,000,000	\$17,385,000,000	\$13,565,000,000
Chicago only	\$8,636,871,000	\$9,369,527,000	\$7,270,026,000
Chicago Stock Exchange transactions: Number of shares, stocks	432,000	628,000	614,000
Market value of shares traded	\$15,079,721	\$17,112,903	\$18,185,349
Railway express shipments, Chicago area	\$1,808,759	2,540,764	2,226,131
Air express shipments, Chicago area	57,762	73,506	46,670
L. C. L. merchandise cars	27,265	30,122	30,393
Originating long distance telephone messages	2,720,179	3,194,171	4,790,482
Electric power production, kwh	1,046,454,000	1,040,005,000	962,555,000
Revenue passengers carried by Chicago Transit Authority Lines: Surface Division	72,614,298	75,165,442	77,787,688
Rapid Transit Division	16,284,059	16,892,598	16,619,067
Postal receipts	\$7,525,058	\$10,734,409	\$7,170,256
Air passengers: Arrivals	73,968	76,809	76,382
Departures	78,295	80,182	69,177
Consumers' Price Index (1935-39 = 100)	171.5	170.1	152.9
Live stock slaughtered under federal inspection	712,228	852,821	788,328
Families on relief rolls: Cook County	17,599	13,125	10,942
Other Illinois counties	16,344	13,236	13,029

¹—Preliminary figures.

APRIL, 1948, TAX CALENDAR

Date Due	Tax	Returnable to
10	Employers who withheld more than \$100 during previous month pay amount withheld to or remittance may be made with quarterly return at end of month directly to	Authorized Depository Collector of Internal Revenue
15	Illinois Retailers' Occupation Tax return and payment for month of March	Director of Revenue
30	Illinois Unemployment Compensation contribution report and payment for first quarter of 1948 (UC-3 and UC-40)	Director, Department of Labor
30	Quarterly return and payment (by depository receipts or cash) of taxes withheld by employers for first quarter of 1948 (Form W-1)	Collector of Internal Revenue
30	Federal Old Age Benefit Tax for first quarter of 1948 return and payment (Form SS-1A)	Collector of Internal Revenue
30	Second quarterly installment on 1947 Federal Unemployment Compensation Tax	Collector of Internal Revenue
30	Federal Excise Tax return and payment due for March, 1948	Collector of Internal Revenue



Peter Fish

MODERN PLANT OF ACE CARTON CORP. • 51st & Central District

The Clearing Organization is prepared to construct a building similar to the one above in six months

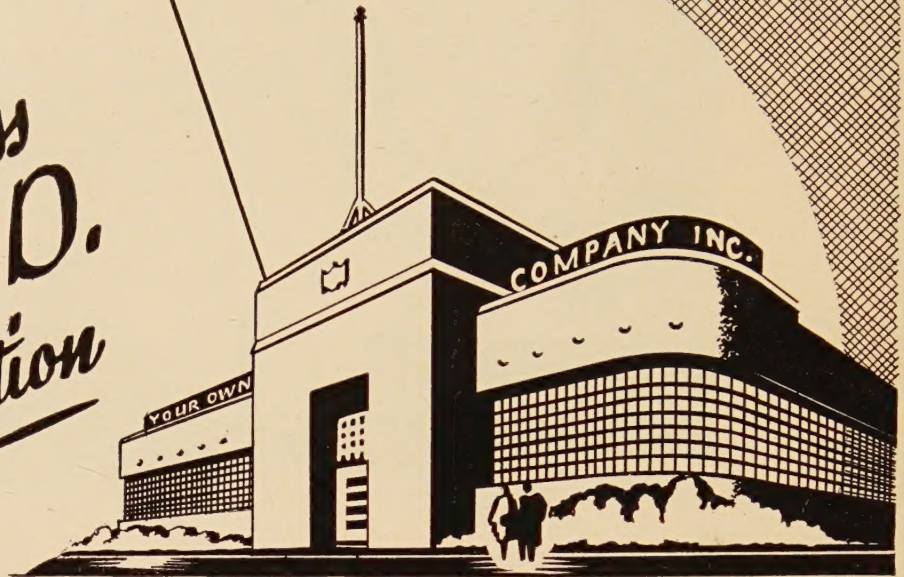
We have available plans and estimates covering one-story plants of nearly every size and type, and these plants will be designed, financed and delivered on either a long term lease or purchase contract over a period of years.

Choice sites are available in any one of the following clearing Districts (1) 65th Street Main District, (2) 51st and Central, (3) North Avenue and (4) 95th Street.

Detailed information as to specific location, cost of land, cost of construction, plant design and layout, and financing may be obtained by a call or letter to Clearing's office.

CLEARING INDUSTRIAL DISTRICT Inc.

38 So. DEARBORN ST. • RANDOLPH 0135

*Malquist***MEMO***Discuss
C.M.D.
Location*

The industry which would succeed under the new efficiency standards imposed by present conditions must look, more than ever, to the economies inherent in advantageous location. Like an individual, an industry thrives better in a community. In company with others it can enjoy collective advantages seldom vouchsafed to the concern located apart.

The Central Manufacturing District was conceived as such a modern industrial community in which the necessities for successful plant operation would be provided. Here industry is given adequate utilities, Chicago Junction Railway service, community advantages and the aid of experts in the science of industrial design and construction.

The Trustees, moreover, have ample resources to finance land and buildings under lease or control of purchase at agreeable terms. This means your industry can enjoy facilities custom built without sacrifice of reserves or complications. To capitalize this opportunity simply discuss your needs with the —

Central Manufacturing District

ARTHUR G. LEONARD

•

FREDERICK HENRY PRINCE

•

W. WOOD PRINCE, Trustees

Richard Hackett, General Manager

1305 FIRST NATIONAL BANK BUILDING

38 South Dearborn Street

CHICAGO 3, ILLINOIS

RANDolph 2235

COMMERCE

M A G A Z I N E

PUBLISHED SINCE 1904

BY THE CHICAGO ASSOCIATION OF COMMERCE AND INDUSTRY

1 NORTH LA SALLE STREET, CHICAGO 2 • FRANKLIN 7700

VOL. 45

NO. 2

MARCH, 1948

CONTENTS ☆

New Tests Spot Executives— In Advance	By Burleigh B. Gardner	13
Ancient Art Faces Revolution	By Herbert Fredman	15
Meet Joe Jones—He Molds a Nation's Buying Habits	By Stanley H. Brams	17
Vacuum Distilling Explores the Unknown		18
Industry's Worst Waster—Sickness		21
Metallurgy Revives Old Crafts For Modern Usage	By Benjamin Melnitsky	22
U. S. Fights "Statism" In World Trade At Havana	By John Abbink	24
For Efficiency—Put Your Office In Order! ..	By Joe Egelhof	25
Chicago Business In 1947		29-83

REGULAR FEATURES ☆

Statistics of Chicago Business	2
The Editor's Page	7
Here, There and Everywhere	8
Trends in Finance and Business	10
Invest—In the Middle West	91
Industrial Developments In the Chicago Area	101
Transportation and Traffic	109
New Products	122
Stop Me—If	130

Alan Sturdy, Editor

Lewis A. Riley, Associate Editor



Published by The Chicago Association of Commerce and Industry. Subscription rates: domestic \$2.00 a year; three years \$5.00; foreign \$3.00 a year; single copies 25 cents. Published monthly and entered as second class matter January 13, 1944, at the Post Office at Chicago, Illinois, under the act of March 3, 1879. Copyright 1948, by the Chicago Association of Commerce and Industry. Reprint permission on request.

Offices: 1 North LaSalle St., Chicago. Telephone Franklin 7700. Night Telephone: Editorial, Franklin 7717; Advertising, Franklin 7711. Neither Commerce nor The Chicago Association of Commerce and Industry sponsors or is committed to the views expressed by authors.

In This Issue—

Selecting men for promotion to executive positions is a difficult task, but now a new method of psychological testing can reveal a man's executive qualifications in advance. Dr. Burleigh B. Gardner, executive director of Social Research, Inc., describes the tests in an article beginning on page 13.

Industrial scientists are developing new methods of distilling substances under high vacuum. Already the process is proving tremendously valuable, but—looking ahead—the experts hesitate to guess just where they may go. This interesting advance into the unknown is reviewed in an article beginning on page 18.

What is the worst waster of our industrial efficiency? The answer is not strikes or factory accidents, but common, ordinary sickness that makes workers snifle, sneeze, stay at home, and lose their efficiency on the job. Industry is confronting this evil realistically, as COMMERCE outlines in an article on page 21.

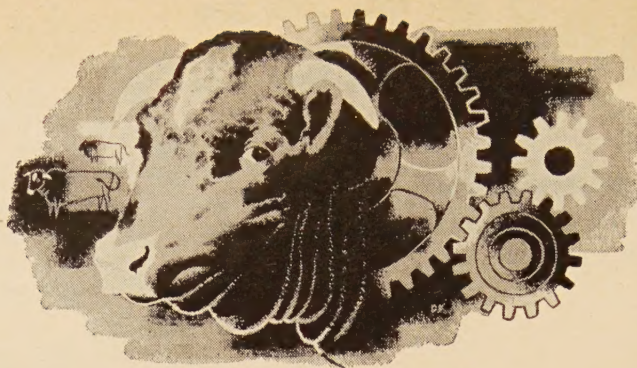
To many a businessman, teenagers are synonymous with bubble gum, "hot lick" records, and bobbysocks. But others realize they are a powerful influence in shaping family purchasing preferences. Stanley H. Brams, Detroit bureau manager of BUSINESS WEEK, takes a pulse count on this potent teenage buying influence in an article beginning on page 17.

Few people know it, but printing as we know it today may ultimately be as antiquated as hieroglyphics. Herbert Fredman provides an insight into the progress in printing on page 15.

Metal spinning, powder metallurgy, and metallizing are three new technological developments that have added to our store of metallurgical knowledge. Benjamin Melnitsky describes them beginning on page 22.

Office managers are striving for greater efficiency in our "clerical mills." Skillful office layout can cut costs and hasten the flow of work, as Joe Egelhof, CHICAGO JOURNAL OF COMMERCE staff writer explains on page 25.

Chicago's industrial community broke through to impressive new production levels in 1947. COMMERCE reviews the year in its annual survey of Chicago business, which is indexed on page 29.



Industry and Agriculture are Partners in Chicago and Northern Illinois...

THE LOCATION of Chicago and Northern Illinois has made it the world center for food processing and farm implement production. A billion dollars worth of food is processed annually here in the heart of the nation's greatest hog-raising and cattle-feeding area.

The first beef was packed for shipment to Detroit in 1832, the hides being utilized for trunks, saddles and harness. The growing influx of grain, cattle, hogs and other products from the farms soon led to the establishment of other branches of manufacturing—milling, soap and candle-making, lard rendering, glue manufacture and cooperage.

Supplying Farm Machinery to the World

John Deere's development of the steel plow in Grand Detour and Cyrus McCormick's decision to move the manufacture of his celebrated reaper to Chicago inaugurated the agricultural implement industry here. *Today this area is the largest producer of farm machinery in the world.*

Due in great measure to the city's growth as the natural railway center of the Middle West, and the invention of the refrigerator car in 1874, Chicago became the hub of the American meat packing industry. Since the opening of the Union Stock Yards in 1865, it has received nearly one billion meat animals. By 1885, its purchases exceeded a million dollars a day. In Illinois alone, farmers have derived more than 40 per cent of their total income over the years from meat and meat products.

Ingenious utilization of the by-products of the meat industry allowed the early packers to market meat at lower prices than local butchers in the East could offer. Early by-products were lard, tallow, brushes, Prus-

sian blue, bone black, beef gall, beef extract, glycerine, gelatin, fertilizer and glue. Today, the processing of by-products is so specialized that the farmer usually receives more for the live beef he markets than the packer realizes from the sale of meat from the animal. By-products from meat packing now add at least 200 million dollars annually to Chicago industries. A few examples of such by-products are feeds, felt goods, leather and sheep-lined clothing, manufacturing bones, athletic goods and pharmaceuticals, for which the glands of the animals supply insulin, adrenalin, thyroid extract and many other remedies.

Several large private laboratories in Chicago and Northern Illinois are developing non-food utilization of farm crops and residues in this huge grain distributing and trading center. The Department of Agriculture's Research Laboratory in Northern Illinois, which discovered a way of multiplying penicillin production 200 times during wartime experiments, is now seeking new uses for corn, soybeans and wheat.

Still More Uses for By-Products

More than fifty products are already manufactured from corn. Illinois has four of the nation's eleven corn refining plants, including one of the largest in the world. From soybeans, in which Illinois is a leader in production, are derived paints, plastics, varnish, soap, linoleum and oilcloth, as well as many edible products.

Learning long ago the value of interdependence between city and farm, the Chicago and Northern Illinois area is, and always will be, part and partner of the world's richest agricultural empire—the valley of the Upper Mississippi and the great plains beyond.

This is one of a series of advertisements on the industrial, agricultural and residential characteristics of Chicago and Northern Illinois

TERRITORIAL INFORMATION DEPARTMENT

Marquette Building—140 South Dearborn Street, Chicago 3, Illinois—Phone RANDolph 1617

**COMMONWEALTH EDISON COMPANY • PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS
WESTERN UNITED GAS AND ELECTRIC COMPANY • ILLINOIS NORTHERN UTILITIES COMPANY**

Visit the CHICAGO TECHNICAL CONFERENCE and PRODUCTION SHOW
March 22-23-24 • Stevens Hotel • See: Chicago's Technical Know-How on Display

The Editor's Page

■ COMMERCE Delayed By Strike

THIS issue of COMMERCE will reach readers several weeks behind schedule due to the strike of the International Typographical Union against most of the commercial printing shops in Chicago. The strike followed several weeks of slowdown tactics by members of the union. This stoppage, which the union in many cases chooses to call a lockout, resulted from the union's determination to evade certain provisions of the Taft-Hartley law, notably the banning of the closed shop.

At this writing the strike is not over. It is, therefore, impossible to say with certainty when COMMERCE will be able to return to a regular schedule and get back to its normal publication date, the first of each month. There are signs, however, that progress is being made and that a settlement may not be too long deferred. We regret any inconvenience that the interruption to our schedule has caused readers and advertisers. The understanding of the difficulties of the situation that many of them have evidenced in their communications we sincerely appreciate.

■ Come Again

THE United States Rubber Company has added something new to the golf ball—two things in fact. Its new model contains a silicone or “bouncing putty” in the core to improve distance. The ball will also be wound by an electronic device to make tension uniform.

This certainly sounds like the ultimate in improving “the little pill that rolls down the hill right into the water.” Now if the big rubber company will only devise an electronic gadget, or for that matter any other kind of a gadget, to put uniformity into the perspiring Sunday golfer's swing we'll really be getting somewhere.

■ Wily John?

THE season when John Lewis takes the center of the stage and becomes the country's number one public figure is here. Soft coal production has stopped, railroad passenger and freight service is curtailed, and the next step in the order of things will be a brownout. If a settlement is not reached before the use of electricity has to be curtailed, people will again be stumbling about in semi-gloom, panting up stairs for want of elevator service and being laid off from their jobs because of industrial shutdowns.

This means that successful as the Taft-Hartley law has been in general in bringing equity and some semblance of stability

to labor relations, it has not been fully successful in curbing John Lewis and his captive United Mine Workers. And that, according to students of the labor-management scene, was one of the important aims of the law. Bringing the bellicose John under some kind of restraint, although not the only purpose of the Taft-Hartley authors, was very much in their minds when the Act was drafted.

Lewis' seeming immunity stems from the fact that he didn't call a strike. He simply reported to “his boys” that the mine owners were treating them unfairly and suggested that they get together in their union halls to talk it over. They did; and by some telepathic means they unanimously concluded that they were not, for the time being, “able and willing to work”—a contingency provided for in their contract.

So round one goes to Lewis. Already he has the country slightly groggy. Even if Lewis sends the men back to work before more damage is done he has already helped to defeat one of his announced major purposes. Instead of fostering opposition to the Taft-Hartley Law he has created new sentiment for it and for its amendment—amendment, that is, to make it stronger, particularly with reference to the leader and the union that exercises a throttle hold on the nation's vital coal production.

■ Marshall Mathews

FOR the first time in seventeen years this magazine is appearing without the name of Marshall L. Mathews on its masthead as advertising manager. Marshall Mathews died on February 27 at the age of 53.

During his long period of service to COMMERCE, Marshall Mathews played an invaluable part in the magazine's growth and development, building not only advertising volume and directing the expansion of its circulation, but contributing many creative ideas for editorial progress as well. He launched, and directed until his death, the Buyers' Guide and Industrial Directory of Chicago, which is also published by the Chicago Association of Commerce and Industry and has grown to be one of the most effective means for promoting Chicago's business.

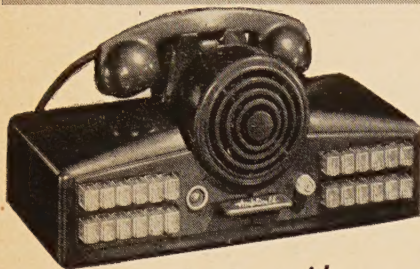
The same energy which characterized Marshall Mathews' more than 30 years in advertising work marked his life away from the office. He was a leader in church and Boy Scout work, a past commander of Post 41 of the American Legion and founder, and for 20 years until his death, president of the post's Sunday Evening Club of LaGrange, an organization which gained national recognition for the quality of its programs.

Marshall Mathews leaves a record of achievement which speaks with its own eloquence. It reflects, only inadequately, however, his warm nature that won him a host of friends.

Alan Sturdy

ELECTRONIC AMPLICALL INTERCOMMUNICATION

America's most wanted
Business Communication
Systems



with

EVERY IMPORTANT FEATURE



Striking Plastic Styling—an instrument of distinguished beauty, worthy of a place on the most important desks in American business.



With "Busy" Signal—an important feature—a visual "busy" signal using neon bulb, indicates instantly when station being called is busy.



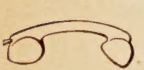
Plug-in Type Masters—allows easy, quick transfer or exchange of Master stations—cuts wiring installation costs by one-third.



Push-Button Selection—fast-working, lock-type push buttons for smooth, easy station selection.



Balanced Line Cable—assures crisp, clear speech, free from cross-talk and extraneous electrical noises.



Handset—professional type for complete privacy, with ample volume and natural speech—optional with AMPICALL Master stations.

Advanced features like these distinguish the New AMPICALL from the ordinary "intercom system." Here is the superior, modern Electronic Business Communication System designed to save time and promote efficiency in any sized office and plant. AMPICALL'S simon-simple operation, electronic speed, and incomparably natural voice reproduction will serve your business handsomely. There is an AMPICALL System available to fit your special needs. Write today for information on America's most wanted Business Communication Systems.



Private Tele-Communications, Inc.
1523 W. Fullerton Ave. Chicago 14, Ill.
LINcoln 4321

- ☐ Send complete details on the New AMPICALL.
☐ Send your representative. No obligation.

Name.....

Company.....

Address.....

City.....State.....

HERE-THERE and EVERYWHERE

• **Alaskan Mining Up**—For business foresight—or perhaps sheer luck—we will probably be a long time matching our investment of \$7,200,000 to purchase Alaska from Russia in 1867. Last year alone, according to the Interior Department, we dug \$10,580,465 worth of gold from the territory once tagged "Seward's Folly." Also, in 1947, we began producing zinc from Alaskan ores. All told, the Interior Department calculates that we have extracted just short of a billion dollars worth of minerals from Alaska since 1880—the exact figure is \$939,373,000. Next to gold, the most important mineral products are silver, platinum, tungsten, and coal.

• **NHA Loan For Factory Homes**—Although the outlook for prefabricated housing is still foggy, the federal government has approved the first NHA construction loan to finance the production of 194 factory-built homes by a Cleveland company. Under terms of the housing bill, the loan may cover up to 90 per cent of the federal housing commissioner's estimate of the manufacturing cost of the prefabricated parts, exclusive of profit. While this is the first loan to be approved, FHA reports that formal insurance applications have been submitted by two other manufacturers, 11 applications have been given preliminary analysis, and five more preliminary applications of being examined.

• **"Sandwich" Panel Pre-Fabs**—Another government agency has also taken action on the prefabricated housing front. The Department of Agriculture is curious to learn whether the "sandwich" panels used in wartime plane building may be practical for home use. To find out, the department's Forest Products Laboratory is experimenting with a panel consisting of heavy gauge paper that is first treated with synthetic resin, then fed through a corrugating machine and glued, layer on layer, in honeycomb fashion. Since thin metal, plywood, or other sheet material can be glued to the core to add strength and durability, the department believes such panels would provide a serviceable, lightweight insulating material that could be joined together to form virtually frameless houses.

• **Private Flying Booms a Business**—The mounting use of private airplanes

for year-round flying, particularly by businessmen, has produced a boom for manufacturers of de-icing equipment. Installations are now running about 200 per cent ahead of any peacetime year, reports James S. Pedler, manager of B. F. Goodrich's aeronautical division. Mr. Pedler says, a majority of the larger private planes used by businessmen are now factory-equipped with pulsating mechanisms for the thin rubber boots that crack ice off leading wing and tail edges.

• **Cancer Research Moves Forward**—Our long battle against cancer, one of man's most insidious enemies, is gaining ground slowly but surely. The Illinois Division of the American Cancer Society, which will begin its annual fund drive on April 1, figures at least 30 per cent and perhaps as high as 50 per cent of those of working age who die of cancer could now be saved, if—through proper education—they could be induced to seek diagnosis and receive proper treatment in time. While the society's ultimate goal is a cure for cancer, it is currently seeking through research to increase the number of those who can be saved. Goal of the Illinois fund drive this year is \$1,150,000.

• **"Rainy Day" Savings Note**—Treasury Department mathematicians have devised a neat plan under which you can assure yourself a monthly income of \$233.33 for 10 years by merely saving \$75 a month for 20 high-income years. It works like this: Invest \$75 a month for 10 years in Series E Bonds, then reinvest the maturity proceeds of \$100 a month for another 10 years—and add to that your regular monthly saving of \$75. The combined average monthly investment of \$175 for the second 10 years will provide an annual income of \$233.33 a month through the third 10 years. Thus, says the Treasury, an \$18,000 investment pays \$28,000.

• **Electronics For a Hole-In-One**—With winter still breathing its frigid wrath at this writing, one finds solace in the information that next Summer's golf ball will be scientifically improved through the application of electronics. This heartening word comes from the United States Rubber Company, whose 1948 golf balls will be wound by an elec-

(Continued on page 93)

BEAT THE RISING FUEL PRICES!

Coal is Cheaper

**YOU SAVE \$
4 PER TON**

when you use

Iron Fireman Stokers

***Save 40%
on your
Oil Bill***



Call Us Today!

IRON FIREMAN MFG. CO.

1101 W. ADAMS ST., CHICAGO

MONroe 8000



**GENTLEMEN: your RESERVE
OFFICE FORCE**

*You'll Never
Know Until
You Try!!*

AS A RESULT of their first trials of this service, many important Chicago offices consider us their RESERVE office force.

TODAY, their office desks are free from piled-up work. The energy of their own workers is never sapped by long hours of overtime. Their regular office expenses are held to a minimum. Extra work costs end the moment the extra jobs are completed.

YOUR FIRST TRIAL will prove what our 600 clients already know... that 'It Pays to Hire the Extra Jobs Done'

Call STAt 8805
for

TYPING: General or Statistical... in your office or ours.

CALCULATING: Many calculations at less than a penny each.

STENOGRAPHERS: Capable, experienced young women. Dictation in your office.

TRANSCRIBING: Ediphone... Dictaphone operators. Beautiful typing. Daily pick-up and delivery.

PERSONAL LETTERS: Written on our Auto-Typists. Low-cost RESULTS from Sales, Credit, Collection and similar mailings.

PUNCH CARD ACCOUNTING & TABULATING: A complete service under exceptional supervision.

ROBERT F. WHITE
and Company

Office Service

Methods Engineering

159 N. Dearborn St. Chicago 1, Ill.



Trends in **FINANCE and BUSINESS**

Scrap Drives

For Steel

Production In 1948

In searching for guideposts in the current period of market unsteadiness, many economists are emphasizing the strategic importance of steel prices as one of the most significant bellwethers of cyclical changes. A corollary is "Watch scrap prices," for scrap dealers are traditionally regarded as among the first people to unload when the horizon darkens.

Some major steel users are not only watching scrap prices but endeavoring to do something about them. General Motors, for example, has adopted an aggressive policy on the scrap problem announcing recently a nationwide drive for scrap recovery among its 365,000 employees, 15,000 dealers and all plant managers. Price stabilization is not the avowed purpose. The emphasis rather is on steady production for, as GM points out, the lack of scrap "held production down in 1947, and if we cannot increase the flow of scrap metal to the mills, production in 1948 will suffer materially."

Other auto makers and steel users are equally concerned over the scrap problem this year and are moving vigorously to get every pound out of hiding and into the melting pots. Some are recovering amazing quantities abandoned by our armed forces overseas. All in all, it appears that industry is determined to beat down one of the worst shortages that haunted it throughout 1947.

« « » »

Ad Costs Will

Be Reviewed

This Year

Among the many rising expenses confronting business in 1948, higher-priced advertising is certain to be one that will receive close attention. A survey by the National Industrial Conference Board indicates that business will probably spend about as much for advertising this year as in 1947. The trouble is this year's advertising dollar buys less than did last year's. The job is to spend that dollar more shrewdly, make it work harder, and thus hope to attain equal results at smaller cost.

Most business concerns plan to try to do exactly this, the survey finds. In the first place, account executives are combining media lists in an effort to weed out

less effective sales stimulators. To trim production budgets, many will re-run their better copy of recent years, new copy will be used more than once in 1948, and advertisements generally will be given a broader appeal so they may be used in a wider selection of publications.

At the same time, expensive color spreads will be curtailed and some companies will revert entirely to straight black and white copy. Direct mail lists will be pruned of deadwood and increased attention will be given to the possible use of photo-offset as an economy substitute for letterpress printing.

"The prevailing attitude," the National Industrial Conference Board finds, "is that either advertising costs must be stabilized or companies will find it necessary to pare their programs."

« « » »

Income Up,

Prices Up,

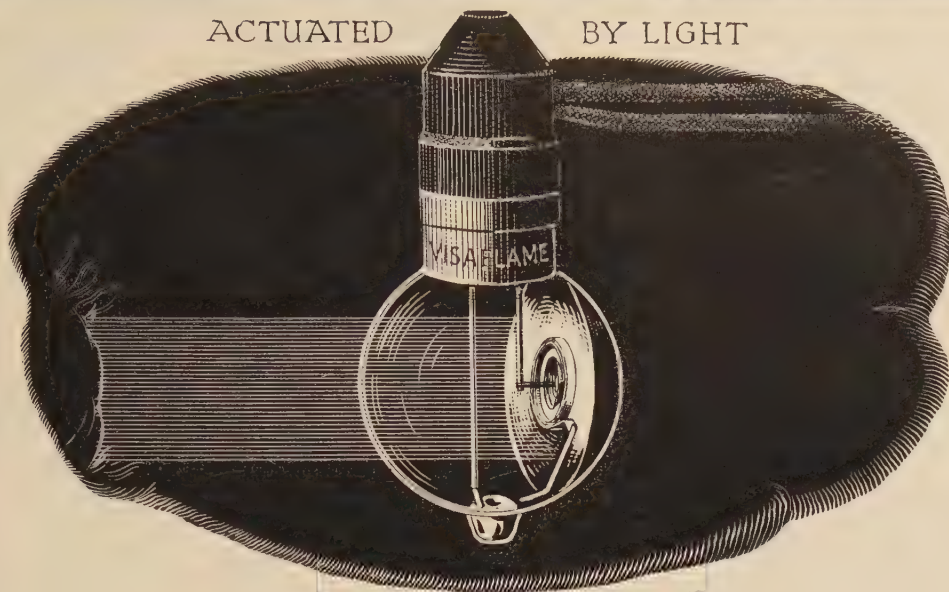
Savings Down

Price indexes and the relative purchasing power of the dollar notwithstanding, it is hard to convince a man who made \$75 a week last year that he shouldn't be somewhat better off this year making \$100 a week. Tell him all you want that the extra currency in his pay envelop adds little more actual buying power, it certainly looks like more money and the obvious question arises, "Why can't I live more prosperously?"

A very substantial number of wage earners and salaried workers have succumbed to this unfortunate fallacy, the First Federal Savings and Loan Association of Chicago has discovered in surveying the savings habits of Cook County residents. The statistics show that in 1944 of every \$100 earned, \$11.87 went into savings. In 1946 the figure was down to \$6.90, and last year it dropped to \$3.37 for each \$100 of income.

There are two significant conclusions to be drawn from this, the savings and loan association believes. First, of course, last year's higher prices were an important factor in curtailing savings. But of almost equal importance was the effort of a substantial portion of families to improve their standard of living. Says the bank, there was "a strong inclination toward free spending for many items
(Continued on page 83)

ACTUATED BY LIGHT



MERCOID VISAFLAME

*The most advanced
Safety Control System
for
domestic and industrial
Oil Burners*

Complete information in bulletin No.V-9

THE MERCOID CORPORATION • 4201 BELMONT AVE., CHICAGO, ILL.

Manufacturers of dependable automatic controls for a quarter of a century



Acme

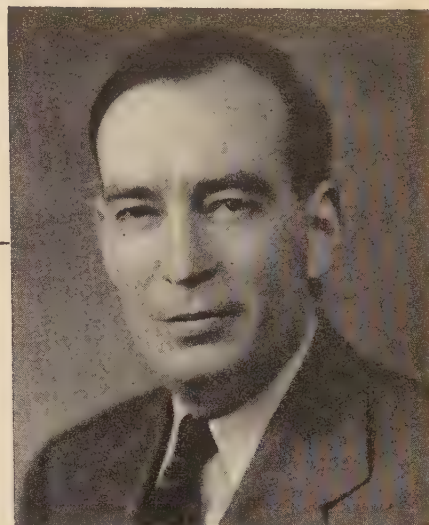
Psychology's Microscope Selects Tomorrow's Executives Today

New Tests Spot Executives

—In Advance

By

DR. BURLEIGH B. GARDNER



Dr. Burleigh B. Gardner

IN CHOOSING younger men for promotion into the executive ranks, how can the potentially successful executive be recognized in advance?

Many executives have found that persons of high intelligence and practical competency often turn out to be ineffective when placed in positions of increased responsibility. It is not that these persons do not know the business or lack the technical skills. It is rather in the area of their relations with others on the job and their behavior within an organization that the real difficulty is found.

Research done on the problem of executive selection has lately come up with the reasons for such failures. Techniques recently developed at Harvard University and fashioned into workable tests by Professor W. Lloyd Warner and Dr. William E. Henry of the University of Chicago, have given us the answers. We now know how to uncover such failures in advance and prevent them.

Personality Traits Listed

Application of these tests among six nationally known business enterprises, now show (1) that it is not only possible but practical to test junior executives in quick form and determine in advance whether they have the stuff of which successful business executives are made, and (2) that the characteristics of the successful, practicing executives can be designated clearly.

From the extensive testing done with junior and senior executives, it is now clear that "successful" business executives have many personality "traits" in common. It is also clear that absence of these characteristics is coincident with "failure" within an organization. The emerging group of "traits" might be thought of as the minimal requirement for "success" within the executive role. Despite the differences among men, the common personality structure of the successful executive has the following eleven

"traits," all of which can now be spotted in advance by the newer tests.

1. Achievement Desires. The pleasure of accomplishment is a potent drive among able executives. They must accomplish and achieve in order to be happy. In some personalities, however, there is a sort of false-face achievement drive which is different from the genuine article. This sort of person hankers for glory and looks to the future in terms of the glory it will shower upon him.

This is different from the achievement drive of the successful executive, who is motivated more by the sheer accomplishment of the work itself. It is not that the successful executives do not have an over-all goal in mind. They do derive satisfaction from the contemplation of future ease, and they do gain pleasure from prestige. Far more real to them, however, is the continual stimulation which arises from the immediate tasks well done. It is that passion for achievement, more than anything else, which animates them.

2. The Idea of Authority. The successful executive's idea of authority is that it does not hamper, inhibit, or constrain him; he accepts it without resentment. He looks to his superiors as persons of greater training and experience whom he can consult on problems and who issue guiding directives to him which he accepts without prejudice. This is a most necessary attitude for the successful executives, since it controls their reaction to superiors.

Executives who view their superiors as prohibiting forces have trouble working within an organization. Unconsciously, they may resist superiors, or do things to obstruct the work of their bosses, or, finally, they may assert their independence unnecessarily.

Two examples of "ideas of authority" which caused difficulty in job situations

may be cited. The first involves a young man who was accepted for a junior executive training position. He had fine qualifications, good college training, excellent appearance and poise during the interview, and agile mental abilities. The psychological analysis detected only one potential source of real difficulty—his concept of authority. He saw his associates as competitive persons whom he must outwit. He had no clear-cut image of superiors as guiding or directing figures. Hence it was predicted that he would soon get into difficulty with his associates and his superiors.

For about two weeks none of these symptoms appeared. Then his associates began to complain to their department head that this man was being overly critical and cutting in on their work. They felt uncomfortable working with him. Soon after, the young man himself began to be increasingly difficult to direct; he became more and more resistant to suggestions about his work. Finally, the company was forced to release him from the junior executive training position.

Why One Man Failed

The second case concerns a middle aged man who had been with one company for about two years. He had been placed in several positions in various departments of the company. In each of these he had done reasonably good work and there were no outstanding complaints about him. His name had come up for promotion several times, but somehow he never was promoted.

He was tested at a time when he had requested another transfer and his superiors were again faced with the question of his promotion. The test analyses—made before any of the above history

was known—showed him to be a man of good though not outstanding abilities and able intellectually to cope with most intermediate level positions. His concept of authority, however, placed him at the top; unconsciously he felt himself to be better than most of his superiors.

When this finding was presented to the man's superior, he was able to substantiate it. He commented how the man always entered his office as though he had come to accept a social invitation, how he always left the office exactly at quitting time in order to be home in time for cocktails, how whenever he had asked for transfer they had been for moves into the central office rather than within the smaller plant where he had been originally hired. His superior also remarked that he had always had the disquieting feeling that this man really thought him to be of lower social status and that he was doing him somewhat of a favor to be working there. In short, the subordinate's idea of authority made it difficult for him to take orders and operate successfully within the organization.

3. Strong Mobility Drives. Successful executives characteristically have strong mobility drives but the drive is directed toward achievement, material rewards and prestige in that order. Material rewards and prestige will keep the individual working with zeal equal to that aroused by a desire for achievement. But the particular kind of work and position which will interest men will differ with the nature of their mobility drives. The successful executives' drive, however, is always first aimed at achievement.

The different motivation behind an individual's drive can be of considerable importance in determining his placement. In one company two men were being considered for a special training. This job involved working in all areas of a new section of the business and eventually assuming a responsible position within it. For the year's training, however, the two men were to have no special titles or responsibilities other than learning all the angles of the business. The psychological analysis suggested that one of these men would adapt readily to this situation while the second would not. The report on the first man emphasized that he was primarily interested in work, accomplishment and new ideas; that therefore this new training situation would be accepted as an exciting challenge.

The second man, however, seemed far more concerned about the outward symbols of a good job than he was about actual work accomplishment or learning new things. His title was quite important to him. He had let it be known in his community that he was an "Assistant Director" in an important business. He liked his private office with a secretary

outside. He was a good worker, had above average abilities, but tests showed he derived more satisfaction from the social implications than from the work. Therefore this new job was reported by the psychologist to be quite a threat. The man would have no title, give up his office, would be just a "learner."

Both men were put on this training job. As predicted, the first man went at it enthusiastically and thoroughly sat-



Ewing Galloway

Photographs like this are shown to candidates. Their reactions measure executive ability.

isfied his superiors with the rapidity with which he learned the new procedures and adapted to the new situations. The second man, however, soon began to display symptoms of dissatisfaction. He could not seem to learn the new procedures, he criticized unnecessarily, he showed no enthusiasm for finding out new things about the new part of the business. His mobility drive, unfortunately, was in the wrong gear, and he soon failed.

4. Organizational Ability. The ability to bring order out of chaos is another characteristic of successful executives. Also, all of them have the ability to take seemingly isolated events or facts and see relationships that may tie them together. In short, they can organize efficiently. Further, they are interested in looking into the future and are concerned with predicting the outcome of their decisions and actions.

5. Decisiveness. The characteristic of decisiveness does not mean that an executive must make quick and final decisions in rapid fire succession, although some do. More crucial is the ability to

come to a decision among several alternative courses of action—whether it be done on the spot or after detailed consideration. Very seldom does this ability break down. While less competent and well organized individuals may become flustered and operate inefficiently in certain spots, most of the successful men force their way to a conclusion. Nothing is too difficult for them to tackle and try to solve.

The breakdown of this trait (usually found only in cases where some more profound personality change has also occurred) is disastrous for the executive. As soon as his decisiveness wavers, it tends to be noticed quickly by superiors with disheartening consequences for the individual.

6. Firmness of Conviction. One way of differentiating between people is in the relative strength or weakness of their notions of self-identity. Some persons lack definiteness and are easily influenced by outside pressures. Some, such as successful executives, are firm and well-defined in their sense of self-identity. They know what they are and what they want, and they have well developed techniques for getting what they want within the framework of their desires and within the often narrow possibilities of their own organization.

7. Activity and Aggression. Successful men have a constant drive to be moving and doing. The executive is essentially an active, striving and aggressive person, although not necessarily so outside of business. This activity and aggressiveness are always well channeled into work or struggles for status and prestige. There is a constant need to keep moving, to do something, to be active.

This does not mean that they are always in bodily movement or moving physically from place to place (though this is often true), but rather that they are mentally and emotionally alert and active. This constant motivator unfortunately cannot be shut off. It may explain why so many executives find themselves unable to take vacations leisurely or to stop worrying about already solved problems. A possible contributory fact is seen in the following point.

8. The Need to Overcome a Sense of Frustration. Successful executives have a pervasive fear of failure. If one is continually active, always making decisions and grappling with problems, any inability to do so successfully may well result in feelings of frustration. This seems to be true of executives. In spite of their firmness of character and their drive to activity, they also harbor a rather pervasive feeling that they may not really succeed and be able to do the things they want.

(Continued on page 103)



Typographer sets headlines in metal on Ludlow casting machine

Korth



Headline setting by new process for photographic reproduction

Acme

Ancient Art Faces Revolution

A TECHNOLOGICAL revolution in the nation's fifth largest industry — printing — is in full swing. When the smoke clears away, the result is almost certain to be better quality printing at greater speeds and, probably, at lower cost for every user of the graphic arts—which means every business.

The printing revolution started out peacefully enough before the war. The war years hastened the transformation; the government needed vast quantities of ration books and other printed matter in a hurry for domestic use, and federal agencies such as the Office of War Information required new types of plates and presses for overseas propaganda activities. But the greatest impetus to change in traditional methods of putting ink on paper has come in the last few months, with the strike of the International Typographical Union

By HERBERT FREDMAN

against newspapers in a number of cities, and particularly in Chicago. Faced with the necessity of issuing papers every day without the aid of compositors to set type, publishers have telescoped into a matter of days changes in techniques that ordinarily might have taken place over a period of years.

The expedients adopted by strike-bound newspapers may not last. It is certain, however, that traditional printing methods are in for a shakeup. Every user of printing, the industry itself, its 300,000 employees, and the tightly-organized printing crafts unions will all be affected in the process.

Looming ahead are printing machines that can be used by any business concern and that, with unskilled employees, will turn out work of professional appearance; new methods of newspaper production that will allow newcomers to enter the newspaper business with less capital than has been needed in recent decades, and that may reverse the trend toward fewer and fewer papers; chemical and mechanical processes that will make full color printing as commonplace—and almost as cheap—as black-and-white printing is today; and a myriad of new inks, presses, engraving processes, photographic techniques, and mechanical contrivances that will affect every printing job from the production of a handful of calling cards to the manufacture of millions of mail-order catalogs.

Like most other industries that grew

Old and new methods of setting body type. (Left) Conventional linotype produces metal slugs. (Right) New Vari-Typer types copy for photographing.

out of ancient arts, printing was slow to adopt the research techniques and methods of science. Except, perhaps, for mechanical typesetting devices, such as the Linotype, the rotary high-speed press, and photo-chemical methods such as photo-engraving and photo-lithography, Gutenberg (who printed the first Bible 500 years ago) would not be too surprised at the activities of a modern print shop. Two recently developed processes, however, would make Gutenberg scratch his head in wonder. One is a printing press that operates without any contact between type and paper. The other is a "typesetting" machine that uses no metal type at all—that does not even have the type bars of a typewriter.

The "pressureless" press is the invention of William Huebner of Huebner Laboratories, Inc., of New York City. Ordinary printing presses work by contact between the inked type and the



paper to be printed. In the Huebner press, there is a gap between the printing surface and the paper; ink jumps across the gap by electronic impulses. The result is that the press can run much faster than an ordinary printing press, and the great weight of present presses is made unnecessary. Huebner's process seems so radically different from present methods that many printing equipment makers scoff at it; but Huebner has a long record of success in the graphic arts field. Designers believe that

that grease and water are mutually repellent. A greasy ink is used, which adheres to the parts of the plate to be printed; the non-printing portions are simultaneously covered with water, which prevents the ink from covering the whole plate. The offset process is a rapidly growing branch of printing. Offset plants turned out printing valued at \$75,000,000 in 1929; at present the gross output of offset plants is well over \$300,000,000 a year.

Since offset is basically a photographic

Photo-typesetting machines and presses in which the ink jumps on the paper may not be in everyday use soon. But a variety of other new methods and machines, scarcely less revolutionary, are already in use.

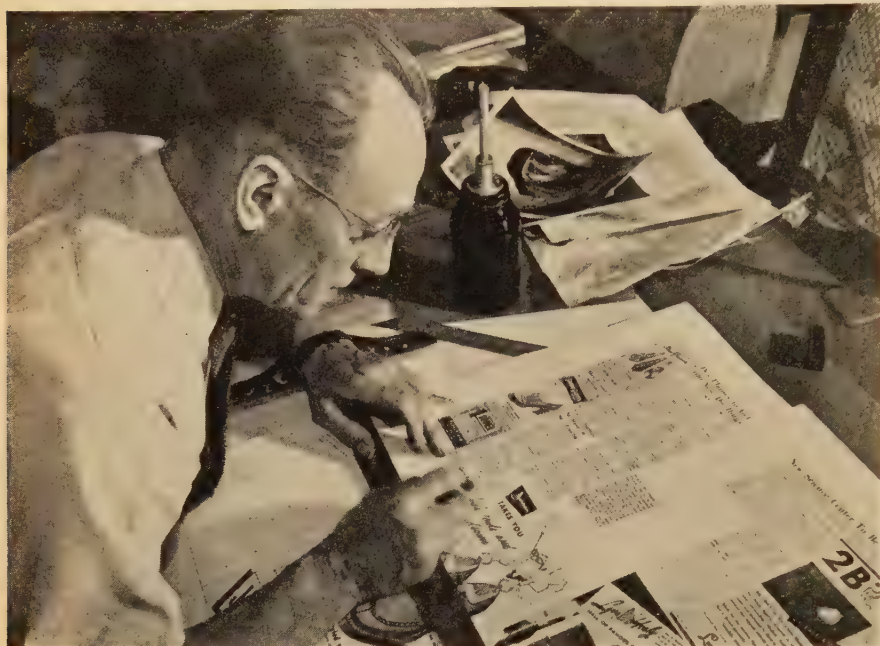
Justifying typewriters have received wide publicity since the start of the compositors' strike in Chicago. Along with photo-typesetters, they may sound the death-knell of metal type.

At least two justifying typewriters, differing widely in their characteristics, are on the market. One, made by the Ralph Coxhead Corporation, is called the Vari-Typer. This is an electric typewriter that is operated by a stenographer much as any other typewriter. The machine, however, has interchangeable type faces; more than 600 sizes and styles of type are available, including Arabic and Hebrew. Type faces can be changed in the middle of a line so that one or two words, for example, can be italicized or put in bold face type. In addition to interchangeable type faces, the Vari-Typer is able to justify typewritten matter. This means that the right hand side of the typed matter is square, just as the left hand side is on the ordinary typewriter. The result is straight margins on both sides, just as ordinary type columns are set in newspapers and magazines. Until union typographers grew restless, most Vari-Typers were sold for office and library use, where the range of type faces and the justifying mechanism were needed for special tasks. In the last year, however, more than 3,500 Vari-Typers (which run as high as \$900) were sold, most of them to newspapers.

At present Coxhead is about ready to market an improved version of the Vari-Typer, a machine developed in collaboration with the CHICAGO TRIBUNE. The new machine has several improvements: the justifying mechanism is better, operating like that of the Linotype and other automatic typesetting machines; the type faces have been improved, to make them more legible; and, most important, the machine has differential letter spacing. This means that thin letters, such as "l" and "i" occupy less space than thick letters like "m" and "w." Differential spacing has been used for years in typesetting, but most typewriters have given equal space to all letters, no matter how wide. The new Vari-Typer, as a result of differential spacing, will produce much more legible copy.

International Business Machines also markets a proportional spacing, electric typewriter which can produce justified copy, but it does not have interchangeable type faces. Several other typewriter-like machines aimed at replacing typesetting machines are in the works. Commercial Controls Corporation is working on the Justowriter, which is in reality two machines. One is operated by the

(Continued on page 124)



Fototyped headlines are pasted on page layouts during Chicago's printers' strike

the new press, if it works out in practice, will slash the cost of building presses.

Two organizations are working on the "typeless" typesetting machines. These are as far advanced over the justifying typewriters that have been used in Chicago since the newsprinting strike as the justifying typewriters are over the conventional typewriter. The typeless typesetters use light instead of metal; and their output is a photographic negative instead of a galley of metal type.

One of the new machines is the product of Intertype Corporation, a company that manufactures automatic typesetting machinery. The new device replaces the hot metal of a typesetting machine with a camera. As the keyboard is operated, a photographic negative is created. The machine can be adjusted to enlarge or reduce the type on the negative. When the negative is removed from the device, it is used to make a printing plate through another photographic process. The photo-typesetter is especially adaptable for offset lithography. In this process, flat metal plates are used in the press; the characters to be printed are not raised, as they are in letterpress printing, the commonly used method. The offset process works on the principle

process, the material to be printed is photographed and the resulting negative is used to make the printing plate. Ordinarily, type must be set, proofs of the type made, and then the proofs are photographed to make the negative. The photo-typesetter eliminates all three steps; the negative it produces can be used directly to make the offset plate. Since the machine can produce type sizes all the way from those used by newspapers for market quotations to headline sizes, it is extremely versatile.

Ink "Jumps" On Paper

At least two of the Intertype machines are already in use. One is in the Government Printing Office in Washington. The other is in use in the Intertype plant in Brooklyn. Recently the machine was used to produce a book catalog. Intertype has been extremely reticent about the details of the machine, but it is reported to be about ready for marketing.

Huebner is also working on a photo-typesetter, which is expected to be tested in Mexico before being introduced in the United States. His machine, called the Phototextype, is said to depart more radically than Intertype's device from conventional methods.

MEET JOE JONES—He Molds A

Nation's Buying

By STANLEY H. BRAMS

TO THE business world, Joe Jones—age 15—is small peanuts. In all his lifetime, Joe has never had more than 65 cents a week for personal spending money and that has gone into soda pop and fudge sundaes. Indirectly, of course, Joe Jones exerts some influence on larger purchases. He squawks loudly if his new suit does not observe prevailing style trends in the jitterbug set. His preference in breakfast cereals probably carries weight at the grocery store. So far as big business is concerned, however, young Jones appears to be a rather insignificant economic force. But is he?

The answer is an emphatic "no." For a population group that personally commands very modest capital holdings, Joe Jones and millions of other teenagers exactly like him wield a tremendous influence in big business counsels. In fact, never before has big business spent so much time, money, and effort catering to the whims of our teenage population.

This compelling interest in adolescents does not extend merely to clothing, cereal, and popular recording manufacturers, who long ago discovered the potent buying capacity of the 13 to 19-year-old age group. Today it has been found that teenagers are equally influential in shaping family purchasing habits on a considerably broader scale. Take, for example, no less important a matter than the purchase of a new automobile. This buying decision, which is the largest single buying contract undertaken by many families, is frequently preceded by a family pow-wow that goes like this:

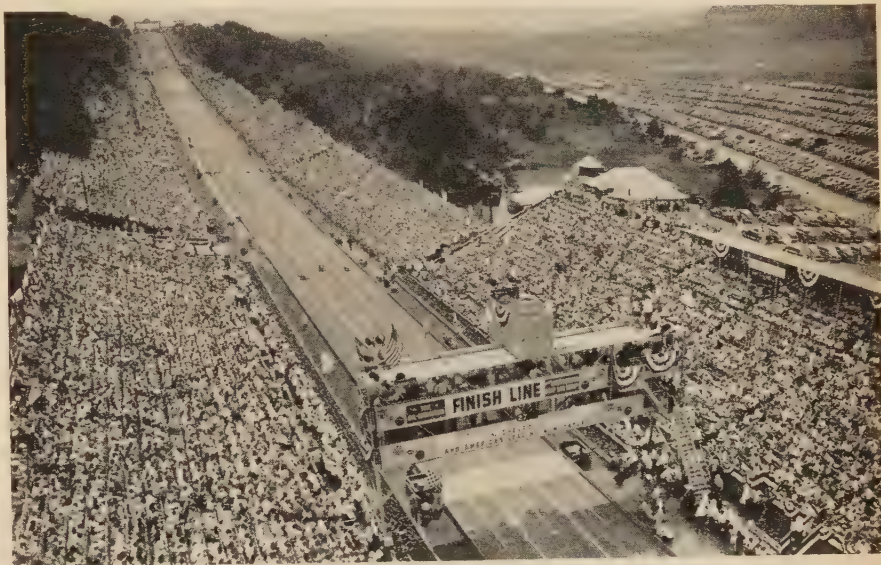
"Dad," chirps young Joe, "anybody knows that Superb Six is a 14-carat

lemon! Let's get an Emphatic Eight. Mac's family has one and, brother, it's strictly sweet . . ." To which young Cynthia, age 16, adds, "Oh positively, Dad! That Superb Six looks absolutely ancient. Bettylou's Emphatic Eight is a perfect dream."

Any salesman (assuming a more normal availability of cars) who undertook to batter down that kind of family re-

sistance would have a job on his hands. The Superb Six already had two strikes against it, for few fathers would be inclined to incite the inevitable censure of his dissatisfied adolescents.

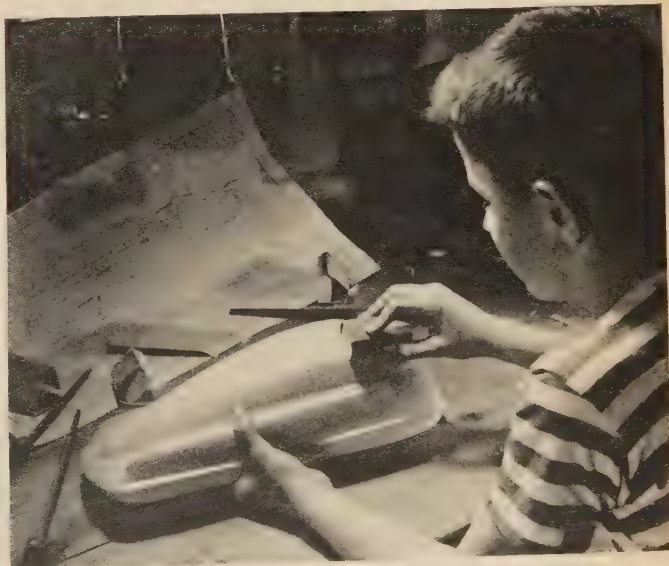
Nowhere is this realized more clearly than among the auto firms. Accordingly, the industry is focusing extraordinary attention upon the junior and senior
(Continued on page 88)



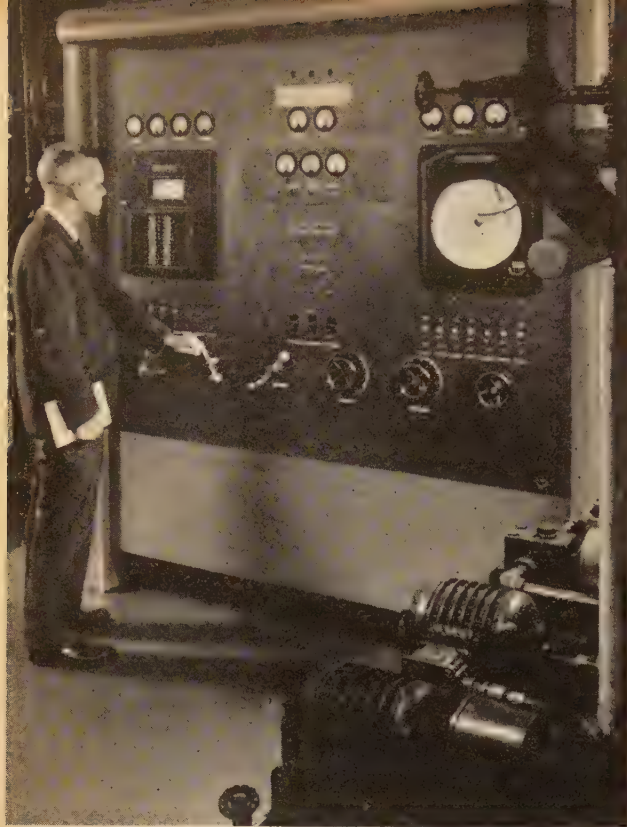
Whooping it up for the Teenagers. Finals in Chevrolet's national soap box derby at Akron



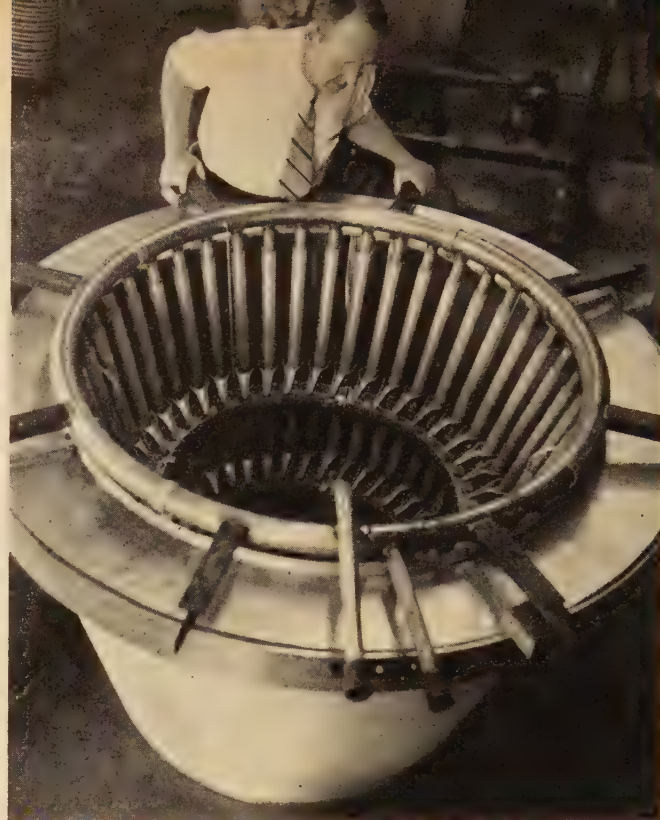
Plymouth bids for juvenile support with model plane contests



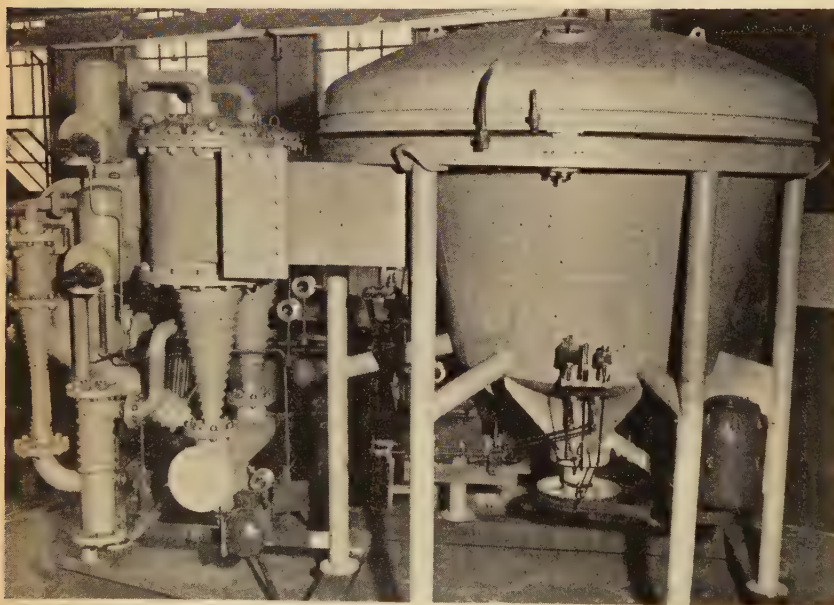
Another G.M. youth program . . . model car building



Engineer at this panel board controls big vacuum still below



"Flowerpot" rotor of high-vacuum still with condenser inside



Pumping gear at left creates vacuum in this five-foot still

Vacuum

vapors of the more volatile portions of the mixture are thereby driven off, and are then condensed in a separate receptacle.

Ordinary distillation is an extremely efficient process. But there is one major drawback. With many substances, including vegetable oils, animal fats, natural waxes, and innumerable synthetic chemicals, the heat required for distillation is enough to destroy the value of the substance. In practice, therefore, many types of raw materials were considered undistillable, and certain fats and oils were termed "fixed" because they could not be separated or purified.

High-vacuum distillation, in the space of a few years, has upset the theories about "fixed" oils. The new processes, in the words of Dr. K. C. D. Hickman, who has played a leading part in developing high-vacuum techniques, "make possible and therefore inevitable a revolution in the technology of one of the world's most plentiful raw materials—the natural oils, fats, and waxes which hitherto have been considered undistillable."

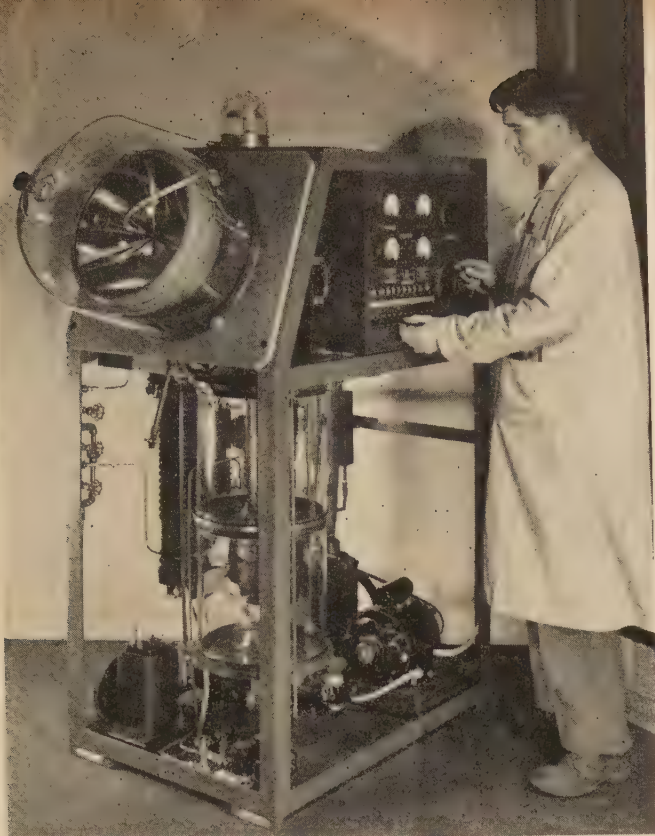
Molecular distillation, the process that has made this revolution in technology possible, is essentially simple. It differs from ordinary distilling methods, in fact, in one principal characteristic: the pres-

A COMPARATIVELY new chemical process, formidably known as molecular distillation, is opening new industrial vistas. It is already in use in producing tons of vitamin concentrates and edible oils from huge quantities of fish oils; the process has also been adapted to such highly varied uses as improving plastic products and the production of tailor-made lubricating oil for watches.

The industrial market for molecular stills, however, has barely been scratched.

Only a handful are in use in the entire nation; only since the war, in fact, have large molecular stills been built in quantity.

The big advantage of molecular distillation—which is also known as "short path" and "high vacuum" distillation—is that it is the only known method by which certain raw materials can be separated into their component parts without ruining the materials in the process. In ordinary distillation, heat is applied to the material to be distilled. The



Here the evaporating plate rotates under vacuum-tight glass



Skilled glassblower constructs intricate laboratory models

Distilling Explores the Unknown

A radical new process is giving us more vitamins, hormones, lubricants and plastics

ence (or absence) of air. Molecular distillation is accomplished under the greatest vacuum that has ever been used for a commercial process.

In any liquid or gas, the molecules—the tiny structural parts of which matter is composed—are constantly moving. Different types of molecules move at different speeds under normal conditions; when heat is applied, all of the molecules burst into even more furious motion. In ordinary distilling, the fastest-travelling molecules of the most volatile substances in the mixture are driven off first by the heat that is applied. However, the air that is in the still also contains molecules in vigorous motion. Inevitably, with billions of molecules rushing in all directions in a still, collisions occur. Of the molecules that are driven off by heat, as a result, many bump into other molecules and bounce back into the liquid; still others are damaged. In ordinary distilling, therefore, large amounts of heat must often be used for comparatively long periods before all of the molecules of the substance to be distilled have been driven out. If the material being distilled is a heavy organic chemical, such as fats or oils, the molecules are in long "chains" which are not too stable. In a collision with another molecule, in other words, the heavy

molecules generally come out second best—they break in half.

In molecular distillation, these tender chain molecules are handled with all the care that a housewife lavishes on her best china. The vacuum that is created sucks out all of the molecules of air that might obstruct the chain molecules. The pressure in a molecular still is sometimes as little as one-millionth of the normal atmospheric pressure. In the vacuum, substances vaporize much more readily than they do under normal air pressures; consequently much less heat need be used.

A Whirling Pie Plate

Finally, the molecular still employs two other devices to assure that the visiting molecules will be treated as honored guests. In the still the condensing surface (where the distillate is collected) is placed as close as possible to the material being distilled—giving rise to the name "short path" distillation. The result is an easy journey for the travelling molecules, with no tortuous paths to follow.

The other wrinkle peculiar to molecular stills is that only an extremely thin layer of the material being distilled is in the still at any one time. Actually, only the surface of a liquid is important in

distillation; the deeper the layer of material, the more chance exists that heat will cause some of the buried molecules to break up.

The modern molecular still gets around this problem in an ingenious manner. The machine itself looks something like a whirling pie plate, imprisoned within a glass jar. Within the jar a vacuum is created of as little as one to three microns of pressure (a micron is equal to about one-millionth of normal atmospheric pressure). The material to be distilled runs on to the center of the rotating plate, which is heated. In a fraction of a second, a thin layer of the liquid spreads across the revolving disc, and is almost simultaneously distilled. The molecules that shoot off are condensed on the cool glass cover, and run into a collecting apparatus. The original molecular stills did not have the centrifugal rotor, and operated by gravity; but these stills are now outmoded for industrial use, although they are used extensively in laboratories.

Molecular distillation was developed in the United States by Distillation Products, Inc., a Rochester, N. Y., company that is jointly owned by Eastman Kodak Company and General Mills, Inc. The company was formed ten years ago after Dr. Hickman, a British scientist who

had done much of the pioneer work on the process came to this country. Eastman Kodak first became interested in the possibilities of the revolutionary still for certain operations connected with the manufacture of photographic film. Soon, however, it was discovered that various vitamins and hormones could be extracted from natural fats and oils, and the wide possibilities of the process were realized.

Vitamins From Fish Oil

In February, 1934, Dr. Hickman embarked on a train at Rochester for Minneapolis to demonstrate the method to General Mills officials. He brought along a large, exceedingly intricate glass still in a huge packing case. The porters who hauled the case aboard the train left it wedged in an aisle, effectively cutting the train in half. Before the still and the distraught Dr. Hickman arrived in Minneapolis, the still, a masterpiece of the glassblowers' art, was in fragments. It was eventually patched together, however, and General Mills joined the enterprise.

Development of the molecular still required a great deal of money, and at

West Coasts of North and South America. These oils could not be concentrated easily by older methods used to extract vitamins, but the molecular still handled them easily. As a result, Distillation Products, which was originally started to perfect the molecular still, turned into the largest producer of vitamins in the world, a distinction the company still enjoys. Vitamin A is produced from tank car lots of fish liver oil, and, in a comparatively recent development, vitamin E is being extracted from soybean oil. Originally the company extracted vitamin E from the waste sludge left over after vegetable oils had been deodorized.

The profits from vitamin production and from various custom distilling jobs—the company produces hormones for one customer, for example—allowed research on the distillation process to proceed rapidly. In addition, the company sold a number of small, laboratory size glass stills for research purposes. Meanwhile DPI built a giant molecular still the size of an automobile with a rotating evaporator, five feet in diameter, shaped like a flower pot. This metal still can handle 3,000 gallons of liquid

to introduce the stills to industry generally, since the original small stills were not large enough for many industrial operations. The large five-foot still sells for about \$75,000, and only five or ten are in industrial use today.

One company is using a molecular still for a process connected with plastics production—a potentially large market for the stills. Another industrial user is distilling chemicals of various types with the high vacuum apparatus. Special products from petroleum oils are also being produced. The stills may be used in petroleum refining to turn out special fractions that are not possible at present with conventional refining equipment. Hundreds of companies have submitted samples of various materials to DPI for tests to see what high vacuum distillation could do with them. Many others have purchased laboratory size stills to conduct their own experiments. Since any company that successfully adopts the molecular distillation process will have a competitive advantage, details of many current projects are kept under wraps.

High vacuum distillation is not an expensive process. Its costs about one cent to handle one pound of material, including labor, power, plant overhead and other costs. And molecular distillation is a speedy process. Take, for example, a material that must be heated to 360 degrees Centigrade in ordinary distilling. In the short-path still, the heat needed is only 130 degrees, and distillation takes place in one-fiftieth of a second. Moreover, the possibility of heat damage in ordinary distillation may be 1½ trillion times as much as in high vacuum operations.

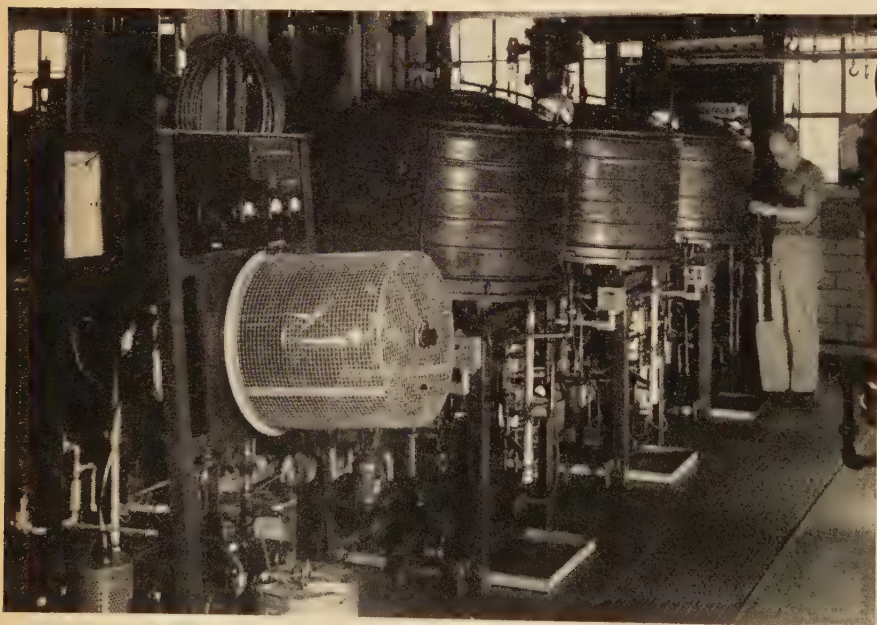
High Cost, High Output

Although the molecular stills are comparatively expensive pieces of apparatus, the value of the material processed in a single still in a week may be greater than the cost of the still itself. One five-foot still can handle two tank cars of raw material a week, with an output of distilled product ranging from a few hundred gallons to about 8,000, depending on the material processed and the end-products desired.

So efficient is the five-foot molecular still, in fact, that Dr. Hickman estimates that enough of these units to provide an evaporating surface one-quarter of a mile square, and operating at one micron of pressure, could handle roughly 100,000,000,000 pounds a year—or about all of the vegetable and marine oils and a large part of the petroleum residue output of the world.

Molecular distillation, of course, is not a cure-all for all of the chemical process problems of industry. Ordinary distillation is still a more efficient and economic process for handling the lighter,

(Continued on page 107)



Vitamin concentrates are made in this bank of 32-inch centrifugal stills

first the outlook for commercial success was not too promising. A fortunate coincidence, in fact, accounts for the rapid perfection of the process. The value of vitamins, particularly vitamin A, as a medicine and dietary supplement was becoming established. The new still proved to be highly efficient in removing the vitamins from various fish liver oils, and the products found an eager market. When the war came along, imports of cod liver oil and other fish liver oils were cut off, and they were replaced by various types of shark liver oils obtained from fish caught off the

a day. A still now being planned will have a ten-foot rotor and a capacity much greater than that of the five-foot still.

DPI itself is constantly seeking new products that can be economically produced in high vacuum stills. In addition to vitamins, hormones, and lubricating oil for watches, the company fractionates petroleum to manufacture a special oil for vacuum pumps.

Originally DPI licensed a few companies to use molecular stills for processes outside the vitamin business. Since the war, a stronger effort has been made

Industry's Worst Waster SICKNESS

THE most insidious saboteur operating within American industry wears no disguise and makes no effort to be underhanded or cunning. It is as straightforward as a sneeze, for this most paralyzing of all threats to industrial productivity is sickness and the appallingly high absenteeism it produces every working day of the year. One authority estimates that sickness costs the nation no less than \$8,000,000,000 every year. It is in no mere philanthropic mood therefore, that business management, more than ever before, is today taking a realistic look at the sickness scourge and its punishing inroads on the economy. Even more significant is the fact that something is being done about the problem.

It takes only a few statistics to point up the tremendous cost to industry of common colds, bad hearts, cancers, tumors, and other malicious ailments. It is estimated, for example, that 600,000,000 man-days of productive effort are lost every year because of illness. This is tantamount to closing down every productive enterprise in the country for a fortnight. In addition to this extravagant loss of actual man-hours, production is constantly being curtailed by ailing employes who, though on the job, are tardy, inefficient, or dispirited simply because they don't feel well.

Real Cause Of Absenteeism

Illness is far more crippling than industrial accidents and strikes. Notwithstanding our emphasis upon their prevention, accidents account for less than four per cent of all lost time. Sickness, on the other hand, accounts for 85 per cent of all absenteeism, according to a recent study of 17,000 cases of lost time. During World War II, colds caused five times more absenteeism than did labor strikes. In a typical war year, 47 days were lost because of sickness, or alleged sickness, for every day lost because of labor trouble.

On-the-job medical attention is only one answer to the problem. Industrial medicine can, of course, provide emergency treatment when workers are injured or disabled. It can, and does, deal with the ill effect of air pollution by dust, fumes, and gases, the inherent dangers involved in certain chemical

operations, and the influence of noise, fatigue, and extremes of temperature, light and atmospheric pressures.

Unfortunately, however, this type of industrial medicine has serious limitations. For every respiratory ill caused by factory air pollution or improper heating, hundreds are caused by inadequate diets, unscientific home heating, and off-the-job nervous and mental conditions. In 1945, for every 78 industrial deaths resulting from poisoning, there were 183,586 caused by cancer and tumors, and 424,524 caused by heart disease. It can hardly be denied, therefore, from the standpoint of efficient operation, that the tubercular or heart disease victim is as much a management problem as the man who wrenches his arm on the job. Production suffers whether the worker is crippled by silicosis or tuberculosis.

Medical Progress Slow

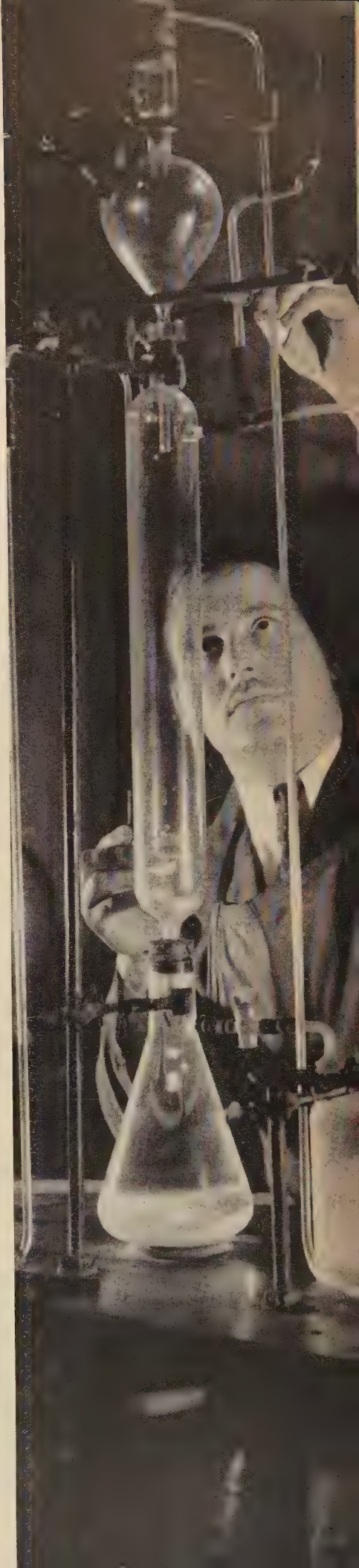
Despite the fact that "industrial medicine," as it is now defined, is only a partial approach to the larger health problem, progress even in industrial medicine is slow and hesitant. A recent study of 565 plants with 500 or fewer workers (in which category, incidentally, some 90 per cent of all U. S. plants fall) turned up these facts:

- 73 per cent did not maintain absentee records,
- 86 per cent did not provide sick benefit plans,
- 88 per cent did not have the services of a physician available,
- 95 per cent did not undertake health education,
- 96 per cent did not give pre-employment examinations,
- 97 per cent did not provide for annual physical examinations,
- 99 per cent did not provide chest x-rays,
- 99 per cent did not give blood tests for syphilis,
- 99 per cent did not have nursing care available.

These figures, which are probably representative, indicate that a large majority of plants fail to provide a minimum of medical attention. Yet on-the-job medical care, it has been shown, reduces sickness absenteeism up to 60 per cent. A

(Continued on page 118)

Ewing Galloway photo



Metallurgy Revives Old Crafts

By BENJAMIN MELNITSKY

METALLURGY in its stubborn determination to contrive better products for mankind is logically regarded as the epitome of onswEEPing technological advancement. But visit any one of a hundred metalworking shops today and you are likely to find the supposition unfounded. For all their devotion to progress, our metallurgists have been behaving strangely. Not only are they borrowing upon the techniques of other industrial crafts, they are resur-recting some handicrafts of the pre-historic past.

Consider, for example, "metal spinning"—one of the latest ideas in metal working lore. Basically, it is a refinement of woodworking crafts practiced in the Middle Ages. "Powder metallurgy," another brand new creation of twentieth century technology, is a throw-back to the molding and baking techniques of neolithic pottery makers. "Met-

allizing," another technological atavism, is really an adaptation of a rudimental handicraft expropriated from the earliest painters.

Taken together, these three developments in metal working are proof enough that the most progressive sciences sometimes advance by stepping backward and sideward as well as forward. Until ten years ago "metal spinning" was widely practiced only as an ornamental art. Metalsmiths "spun" silver platters, chandeliers, pewter urns, aluminum utensils, and the other assorted bric-a-brac that has since found its way to curio shops and collectors' galleries. But during the war "metal spinning" took a new lease on life. Once adopted in the ordnance factory, it began molding bazooka cartridges, airplane fuselage noses, buoy parts, helmets for diving suits, searchlight reflectors, vats, tanks, cowl, and a host of other cylindrical,

circular, and concentric objects. Before long, a wide variety of metals—aluminum, brass, magnesium, silver, stainless steel, copper, and carbon steel—began turning on the new factory "spinners."

A century ago, metal spinning was employed by aes-

thetic craftsmen. Strangely enough, spinning originated as a sort of butterfly craft and never quite managed to bridge the gap to the more proletarian type of high-speed, factory production. It took a war to convert the butterfly into a businesslike caterpillar with its multiple legs deeply engaged in war production. This reverse metamorphosis, curious as it appears, is perhaps unparalleled in the history of metal working.

A Craftsman's Art

Despite the transformation, metal spinning still retains some of its butterfly idiosyncrasies. In the spinning process, some of the quasi-industrial characteristics of the crafts shop still show up. The spinning lathe, reminiscent of but larger than a woodworking lathe, is one example. There are no elaborate push buttons or electronic controls to be seen; no modern, high-speed tools, and few if any gadgets. In place of the chuck to hold the work piece, there is a die form made of wood or steel. Facing it is a conventional tail stock which screws in place to clamp a metal disc against the die form.

The spinner, who is likely to be an old-time metal worker, approaches the machine carrying one of the numerous varieties of spinning tools. Some are metal-tipped, wood poles; others resemble huge pliers; still others are simple metal rods or short lengths of wood. Placing the tip of the tool against the



Major steps in metal spinning are pictured on this page, beginning at left and moving counter-clockwise. Process begins with a plain metal disk placed on spinning lathe to face a circular die form. Operator slowly molds rotating disk with a variety of shaping tools to conform to master die. Below-right, completed part is removed.



For Modern Usage

center of the revolving metal disc and using the tool post as a fulcrum, the spinner applies pressure progressively from center to edge of the disc, enabling the metal to flow tight and snug around the die form. The whole process is controlled by the hands and body of the operator as he applies one after another of the spinning tools to the revolving disc.

The spinning operation involves a series of progressive stages. Several dies are used, each a step closer in contour to the finished part. After each forming operation, the spun metal is annealed to eliminate strains created during the cold working operation. For a semi-handicraft process, metal spinning is surprisingly accurate. A close check with blueprints and micrometer will disclose that tolerances of from plus-minus 0.015 inch to plus-minus 0.060 inch can be accomplished. Equally as surprising are the variety of shapes and sizes that can be worked. Parts from one-fourth inch to over 108 inches in diameter can be processed in the same shop.

Smooth, Satiny Surface

Realizing that such "spun" parts are of the type usually fabricated on high speed stamping presses, it is not illogical to question the use of a relatively slow spinning lathe. Although the process is slower, spinning does have compensating advantages. For small jobs up to 2,000 or 3,000 parts, metal

spinning is cheaper than competing methods because of lower die costs, shorter set-up time, and cheaper machine time. There are additional points in favor of metal spinning:

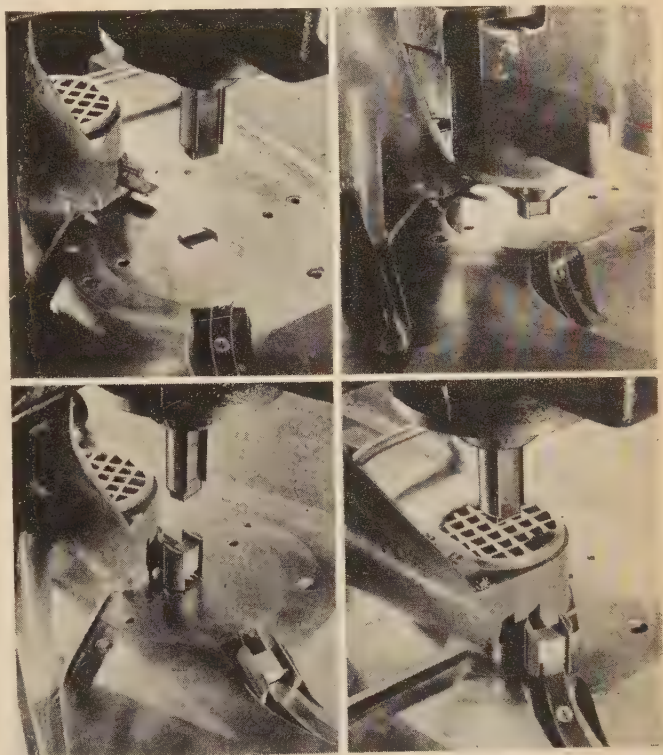
1. Spun surfaces are smooth and satiny and in many cases require no finishing operations;
2. The cold working given the metal adds strength and toughness to finished parts;
3. Die forms can be made quickly and cheaply, thereby permitting design changes when necessary and allowing more time for rush jobs;
4. Where progressive dies are used, extreme deep drawing is possible;
5. There is little waste due to scrap losses.

Metal spinning does have its drawbacks, however. It cannot compete where mass production of parts is essential, where parts with elaborate contours and irregularities or with extremely small or large parts are required, where metal thicknesses are greater than one-

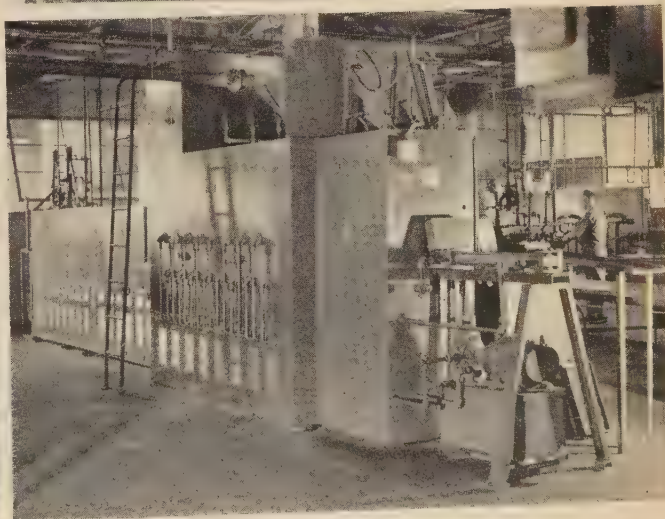
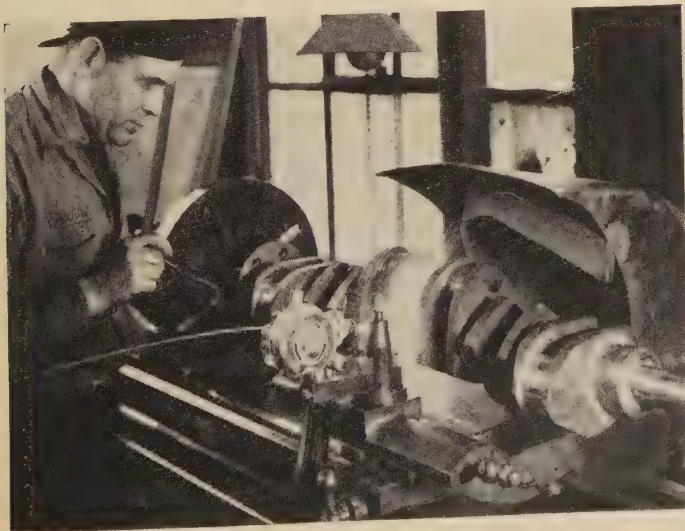
fourth inch, or where other than circular, concentric or cylindrical parts are to be fabricated.

While metal spinning has won widespread attention as a method of creating new products, "Metallizing"—which is a spraying process—has gained significance as a unique method for restoring old products as well as finishing new ones. The chief difference between paint shop spraying and metal spraying lies not in the means of application but the materials being sprayed. In the paint shop, the object is a smooth enamel or dull-finish coat of paint. In metal spraying, the end product is a thin coating of aluminum, babbitt, brass, copper, iron, lead, nickel, or of any other of many metals available in wire form. In both cases the spraying device resembles a comic-strip rocket pistol. Despite its complicated design and the long snake-

(Continued on page 97)



Powder metallurgy: (Beginning top-left, moving clockwise) Black center spot is metal powder deposited automatically in bottom of die form. Top half drops with tremendous force to compress powder. Compact is ejected and fed to sintering furnace below-right as process repeats. Below-left, metallizing gun sprays atomized steel on worn crankshaft.



U. S. Fights "Statism" In World Trade at Havana

By JOHN ABBINK



"Business statesmanship—or commercial chaos?"

THE United Nations Conference on Trade and Employment, which is the official name of the international gathering that has been meeting in Havana since late November, is made up of delegations from 58 countries or political territories, not all of which are members of United Nations. About 1,200 accredited representatives are in attendance, constituting a veritable Babel-dome of economic opinion. Moreover, it is no exaggeration to say that the Havana Conference is the most important economic gathering that has been held in modern times. Here for the first time all of the important nations of the world are meeting to debate ways of increasing trade, promoting development and easing or eliminating barriers, discriminations and restrictions. To anyone interested in the broad aspects of international trade as a means to world peace, the conference is a fascinating seminar.

Protectionism Vs. Low Tariffs

Preliminary to the Havana meeting, there were conferences in London in 1946, and in Geneva in 1947, attended by 20 nations as a preparatory group, which met to discuss a proposed charter written in Washington after many months of study and drafting. The original draft of this charter was inspired at the Bretton Woods Conference, which was responsible for the establishment of the World Bank and the International Monetary Fund. Few realize that the Bretton Woods Conference considered that the bank and the fund would be difficult to operate, and that their ulti-

mate success would be jeopardized, unless a business practice code at the international level could be established.

The preliminary meetings at London and Geneva produced two documents, first the Draft Charter which now is under debate at Havana, and second an undertaking by the 20 nations represented that they would forthwith put into effect an agreement to lower tariffs and other trade barriers as an example to the rest of the world of what a Charter on Trade and Employment might be able to accomplish for all. This latter document was proclaimed by the President on December 16, and made operative as between ourselves and the United Kingdom, Canada, Australia, Belgium and various other countries which had participated in and ratified the deliberations at Geneva. The result has been a lowering of our tariffs and those of other nations, some relaxation of British Empire preferences, and additional trade benefits which are expected to act as stimulants to world economic recovery.

One interesting result of the Geneva discussions is the fact that the United States now is one of the low tariff countries of the world. Experts estimate that the general level of our tariffs is something like one half of what it was immediately pre-war, although it should be remembered that the larger proportion we are now importing of raw materials would tend to distort the general level percentage. Still more arresting is the fact that while the general level of our tariffs has been measurably decreasing, the principle of protectionism is constantly being advanced at the Havana Conference as the only barrier available to the rest of the world against com-

plete economic domination by a few large nations, especially the U.S.

While the Geneva Draft Charter provided a text for the world meeting in Havana, it by no means limited the debates there. Every argument that was raised at Geneva reappeared at Havana, different in form, perhaps, and in intensity, but not in substance. If Geneva was a preliminary bout, Havana became a battle royal between so-called "underdeveloped" countries and the nations with more mature economics, which were dubbed the "industrialized" countries. On some issues the debates were bitter, and the shading of emphasis within those issues brought out into open forum for the first time the economic problems of almost every country in the world.

"Have-Nots" Are Realistic

The underdeveloped countries concentrated their arguments almost entirely on their need for industrial programs, and price support for the raw materials they produce, respecting both of which they feel they need to resist what they describe as "pressure" from the larger nations. There was no evidence that they felt this "pressure" was being deliberately applied, but rather that the very nature of present day world economics relegates non-industrialized countries to a minor and dependent role—a 20th century type of imperialism—which they resent. All of the Latin American nations, Australasia, the Far and Middle East countries and those in Africa, are in this category. Differences as to emphasis within the group at Havana mitigated against the formation of a working bloc which would have proved difficult to deal with.

Their minds did meet on one point, and Quantitative and Qualitative Restrictions (QR's) became the thorniest problem at Havana. How, these underdeveloped countries asked, can we promote industrialization unless we are permitted under the charter to exclude products from other nations that compete with those we make, or plan to make? How can we channel our imports so that

(Continued on page 111)

SPEECH OF THE MONTH

(Condensed)

Made before the Chicago World Trade Conference, February 16, 1948



Simplicity and utility—keynote of executive office styling—promote greater efficiency

For Efficiency—Put Your Office In Order

By JOE EGELHOF

INDUSTRY'S clerical mills—long regarded as just a necessary evil of operating a business—are finally shaking loose from traditional methods and taking on production line efficiency.

Confronted since the war with constant shortages of labor and materials, business management has understandably focused its attention upon the factory and the efficiency of factory workers. Usually, office managers have been left to sweat out their own inefficiency headaches. Sometime in the obscure future, doubtless, new office buildings would materialize and office managers could then establish really efficient clerical headquarters. But, for the present, high prices have ruled out skyscraper buildings. Nevertheless, paper work has multiplied, the competition for office help has been intense, and office managers right now face a serious problem of increasing efficiency and bettering the working conditions of their employees.

Thus, through the muddle of clerical

inefficiency and crowded work quarters, there has developed a trend toward effective office layout that may well revolutionize the nation's offices, in advance of a construction boom. Offices are being redesigned for efficiency and good public relations, not as an administrative appendage of a production or merchandising operation, but as efficient factories in themselves. Their product is, of course, paper work. From the public relations viewpoint, they are being designed to give a visitor a warm, welcome feeling, for a visitor, as one architect points out, may be a prospective customer or a salesman with a steel quota.

Desk Layout Important

Detailed planning lies behind this drive toward greater efficiency. Office-furniture manufacturers, like Chicago's Spak and Natovich, utilize scale models of desks and filing cases in the same way home furnishers exhibit their tiny living rooms and kitchens. Planners can thus

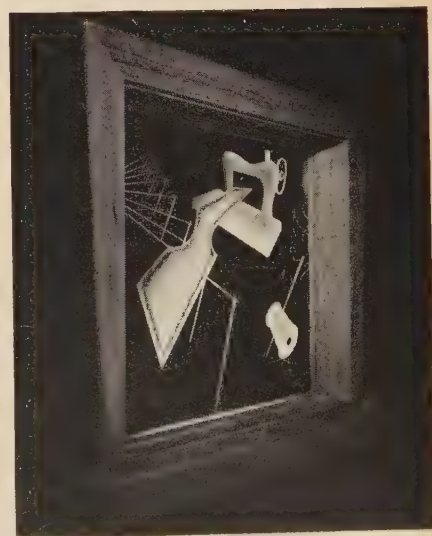
analyze the relative efficiency of various types of desk arrangement.

On this important matter of desk arrangement, Harold C. Pennicke, a Connecticut specialist, told the Office Management Association of Chicago recently, the most efficient desk patterns are, one, end to end in pairs and, two, a large number of desks end to end. Pairing is the better of the two if space permits. But, Mr. Pennicke prefers the second pattern for space-saving, pointing out that many companies employ this scheme to create assembly lines for routine clerical chores. The third best pattern, according to this authority, is three desks end-to-end, a layout in which, unfortunately, the "middleman" has no access to an aisle and an extra foot of space must be allocated between desk assemblies. Fourth best is two desks facing each other. The most inefficient plan is desks arranged singly in front-to-rear rows, in school room fashion.

Scrap Those Partitions

Office planners believe a really effective layout requires a large, open clerical work area. To the planner, partitions are anathema; they seriously obstruct workflow, light, ventilation and supervision. The open office has, in fact, become rather generally accepted. Where partitions are still used, more often than not they are made of glass. According to Mr. Pennicke, many offices could increase their efficiency by one-third merely by eliminating several dark partitions and rearranging desks.

In planning a new office, the architects and layout engineers emphasize, look ahead! An open work area permits flexibility. Walter H. Sobel, of the firm of Walter H. Sobel-J. Stewart Stein, admonishes that offices generally become cramped as a firm's business grows. At the outset, extra space may seem wasteful, but it permits the office to handle peak loads without a loss of efficiency.



Effective decorating: a framed "theme" panel of illuminated plastic in a dressmaker's headquarters

One way to anticipate larger or smaller operations as well as departmental changes is to have plenty of telephone connections and electrical fixtures located at strategic spots.

Flexibility of layout also means the effective utilization of all office space. Companies that work long hours trying to get a factory machine in operation seven hours a day instead of six, layout men complain, think nothing of reserving a large room and a collection of costly furniture for infrequent directors' meetings. Actually, the boardroom should be utilized for executive sessions, sales meetings and similar conferences. In the same fashion, office cafeterias are being used as employe meeting halls. (Incidentally, smaller offices often find that a "cafeteria"—consisting merely of light cooking equipment and several kitchen utensils, increases employe morale. Since workers prepare lunch on the job, they don't return late from lunch.)

Keep Work Flowing

Traffic problems are as serious a problem in the office as in the factory. Toward solving this headache, the John A. Patton management engineering firm recommends that in addition to clerical production lines entire offices should be arranged to permit a "natural flow of work with no doubling back." Equipment should be handy to those using it most frequently. Filing cabinets should also be close at hand. The location of restrooms should be considered from the traffic viewpoint. One authority believes special attention should be paid to "separating the traffic of employes from the public." His basic layout principles are: One, provide the best possible intercommunication; two, locate each segment of the office to minimize cross-traffic, and, three, give employes the best access to things they need.

Fluorescent lighting and air conditioning are solving light and air problems in new offices. But where windows must do the job, there has been a major change in layout, the specialists say. Executives' compartments were once built by windows with the work space concentrated toward the center. Now, the working force, so to speak, usually gets the windows. Underlying this shift, says one architect, is the idea that the boss will work just as hard whether he has good or bad light and air. With the elimination of many private offices because of the acceptance of the open work area, supervisors generally are being moved out where they can supervise.

Business this year is depending on the availability of new office machines to increase efficiency, and these giant mechanisms, themselves, are creating some layout problems. One machine manufacturer, which rents punched card equipment, assists its customers in arranging equipment. This layout job, according to the manufacturer, is "based on the

production job. It takes into account the source of the work as well as the desired flow. We must consider such things as the general working space available, floor-load, and the proximity of filing space." Floor-load is important because some of the machines weigh a ton.

Open Work Areas Best

The mechanization influence has been felt for years in office designing. Machines have accelerated the trend toward the open work areas, although the machines sometimes must be isolated be-

company's operations. H. Allen Majestic of H. Allen Majestic and Associates, says "simplicity is the keynote." We work toward a softening effect through color and lighting, with decorations used only when contributing something to the general tone." Mr. Pennicke says, "If you deal in millions at a time, you should look it. But if you have a five-and-dime type of business, undue luxury may cause the customers to wonder where their money is going."

Three Sobel-Stein jobs illustrate the "company-theme" idea. In a cotton goods manufacturer's office, cotton cloth



Improved layout saves time and space. Bulky filing material lining wall and on desks in this office was compressed into neat cabinet at right.

cause of noise. They also demand wider office aisles because materials occasionally must be moved to the machines in wheeled containers. Acoustical treatment of ceilings and even walls has become increasingly important. Because of the volume of paper and cards fed into the machines, more attention must be given to storage facilities and filing space. When arranged in batteries, the machines require foreman-like supervision, and arrangements must be made for servicing and parts storage. In general, they turn an office into a real paper-work factory.

When it comes to decoration, most designers prefer a theme which will eliminate a factory air and actually make the office appear like an office. A company's administrative headquarters should possess a fundamental theme, which should be carried out in the reception room, general work areas, and executives' offices. Obviously this implies effective public relations, for it tells every visitor that irrespective of station he will receive identical treatment. Here are the theories of three specialists on the subject:

According to Mr. Sobel, offices should incorporate a theme pointing up the

was used as wallpaper. A dress manufacturer's headquarters was decorated with framed plastic panels, illuminated by edged lighting and carved with figures of sewing machines, dress dummies, and other dress-making equipment. Sobel-Stein decorated its own offices by blending architectural magazine covers with the wallpaper. The idea, Mr. Sobel says, is to "create a warm, human feeling and to provide something that impresses the visitor as interesting without being obvious."

A Bright, Airy Look

Though they may be designed to impress, an overly luxurious interior and bizarre decorations find no favor with office specialists. Warm wall colors present too severe an effect. The use of fluorescent lighting has promoted softer pastel shades. Transparent and semi-transparent materials for partitions provide a bright, airy look. Acoustical materials have a decorative pattern of their own. Recessed lighting eliminates desk-cluttering lamps. On windows, venetian blinds are finding less favor because of cleaning problems; hence, drapes are being used as light-controllers. On floors,

(Continued on page 127)

SERVING INDUSTRY

☆☆☆ *for 70 years* ☆☆☆



Since 1878, the Chicago Rawhide Manufacturing Company has specialized in the engineering, development and production of pliable materials and parts for hundreds of mechanical applications. These seventy years have been devoted to extensive research and practical field experience in the solution of every type of mechanical sealing and protection problem. As a result, Chicago Rawhide is able to provide products of highest quality and exceptional service.

☆
ACHIEVEMENTS
by **CHICAGO RAWHIDE**

☆
SIRVIS MECHANICAL LEATHERS
For the protection of all types of mechanisms

☆
PERFECT OIL SEALS
The accepted solution to mechanism sealing

☆
SIRVENE
The scientific compounded elastomer

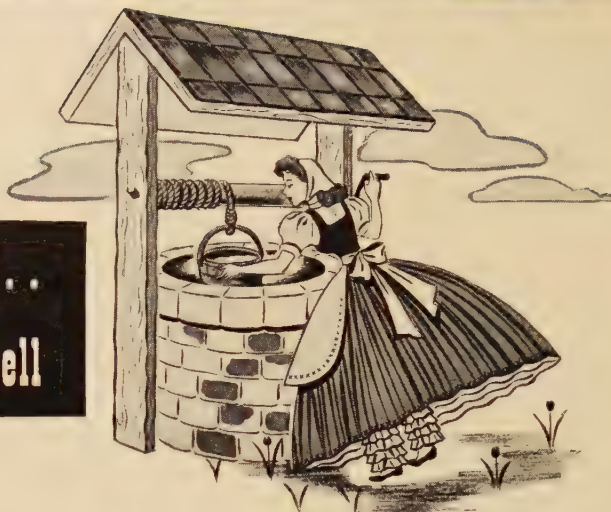


CHICAGO RAWHIDE MANUFACTURING COMPANY

1301 ELSTON AVENUE

CHICAGO 22, ILLINOIS

It was an awful nuisance...
putting butter down the well



That roll of butter snuggled in the moss covered bucket is a moss covered idea — to today's homemaker. She's used to the last word in refrigeration — a gleaming mechanical refrigerator and a wonder-working home freezer. In both, Panelyte plays an important part.

Panelyte is the trade name of the hard, laminated plastic made by St. Regis. Hot pressed sheets of fibrous paper impregnated with synthetic resin make a remarkable insulating agent. There's nothing like it for lightness and strength, and for resistance to scratches and stains.

Remember the name. When you regale friends with out-of-season delicacies from the home freezer's depths... when you save money buying in quantity when food is low priced, it may be due to Panelyte.

You'll like Decorative Panelyte, too—a lustrous plastic in style-conscious colors and patterns. It is actually *hard* to mar — so it's excellent for table tops and other working surfaces.

In its 43 plants throughout North and South America, St. Regis also manufactures: Printing, publication and specialty papers... Heavy-duty multiwall paper bags for shipping over 400 products... Automatic bag-filling machines... "Tacoma" bleached and unbleached sulphate pulp.

ST. REGIS PAPER *Company*

230 PARK AVENUE, NEW YORK 17, N. Y.

St. Regis Products are sold by St. Regis Sales Corporation: Offices in New York • Chicago • Baltimore • San Francisco and 20 other industrial centers.

IN CANADA: St. Regis Paper Co. (Can.) Ltd., Montreal

PRODUCTS FASHIONED FROM GROWING TREES
TO SERVE ESSENTIAL INDUSTRIES



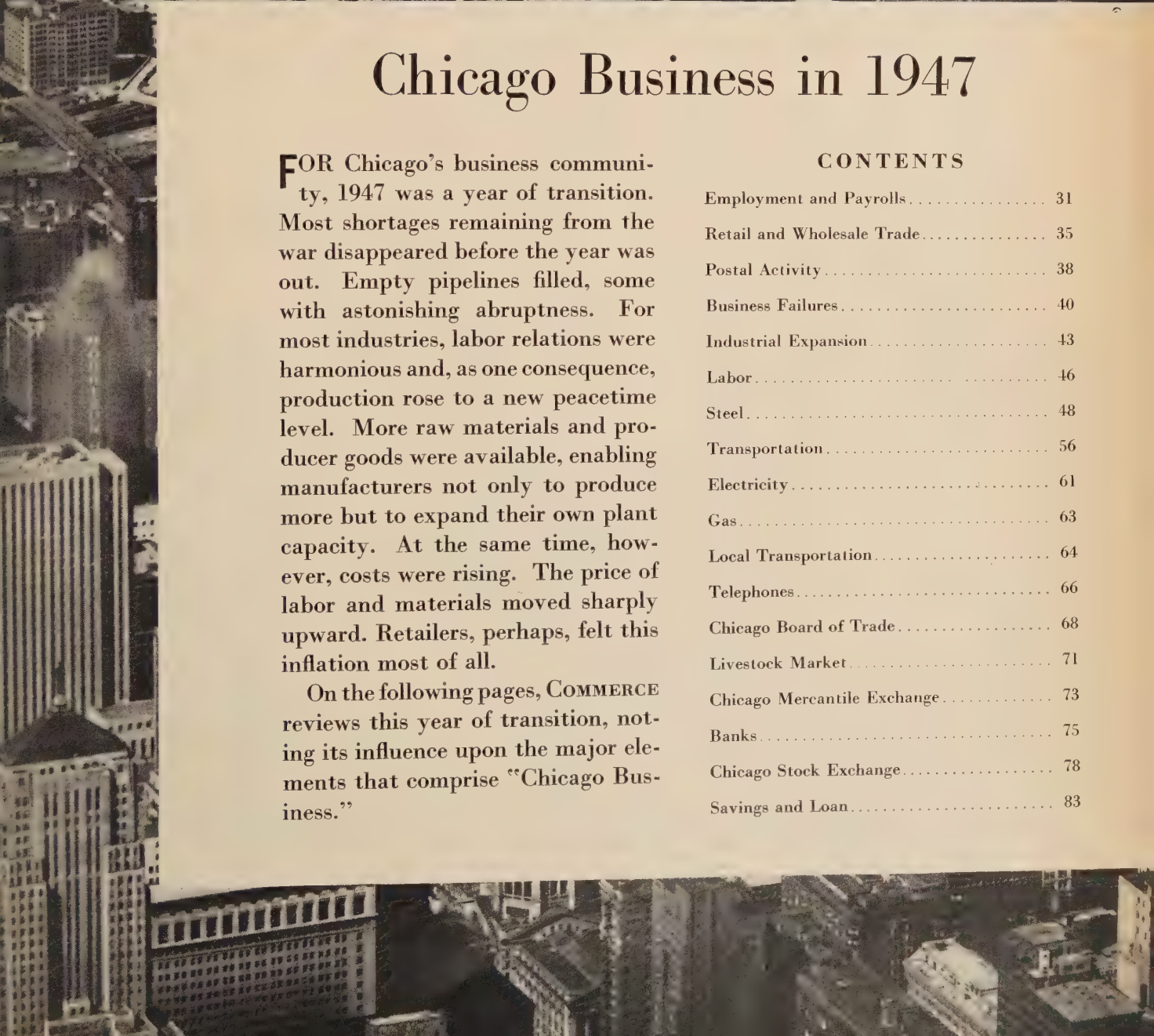
Chicago Business in 1947

FOR Chicago's business community, 1947 was a year of transition. Most shortages remaining from the war disappeared before the year was out. Empty pipelines filled, some with astonishing abruptness. For most industries, labor relations were harmonious and, as one consequence, production rose to a new peacetime level. More raw materials and producer goods were available, enabling manufacturers not only to produce more but to expand their own plant capacity. At the same time, however, costs were rising. The price of labor and materials moved sharply upward. Retailers, perhaps, felt this inflation most of all.

On the following pages, COMMERCE reviews this year of transition, noting its influence upon the major elements that comprise "Chicago Business."

CONTENTS

Employment and Payrolls.....	31
Retail and Wholesale Trade.....	35
Postal Activity.....	38
Business Failures.....	40
Industrial Expansion.....	43
Labor.....	46
Steel.....	48
Transportation.....	56
Electricity.....	61
Gas.....	63
Local Transportation.....	64
Telephones.....	66
Chicago Board of Trade.....	68
Livestock Market.....	71
Chicago Mercantile Exchange.....	73
Banks.....	75
Chicago Stock Exchange.....	78
Savings and Loan.....	83



Are you planning a new plant location?

Let us help you
with Facts and Figures on



Burlington-Land Welcomes You!

More than 1,000 cities and towns in this region welcome new industrial neighbors. Here is a balanced economy of farms and factories . . . stable business conditions . . . productive workers.

To and from this region, the Burlington provides fast, dependable freight and passenger service. Through 22 principal gateways and more than 200 interchange points, this railroad affords direct connections with sources of materials and markets in all parts of America.

J. B. LAMSON, Director
Department of Industry and Agriculture
547 W. Jackson Boulevard, Chicago 6, Ill.

The 14 states served by the BURLINGTON offer important advantages to industry—sound reasons for locating in "BURLINGTON-LAND."

Many of these you may already know. But some vital questions can best be answered by people who know this region intimately.

Burlington men have already collected, interpreted and classified a great deal of useful information. They can dig out additional facts you need. Can you use their help?



AN ESSENTIAL LINK IN TRANSCONTINENTAL TRANSPORTATION

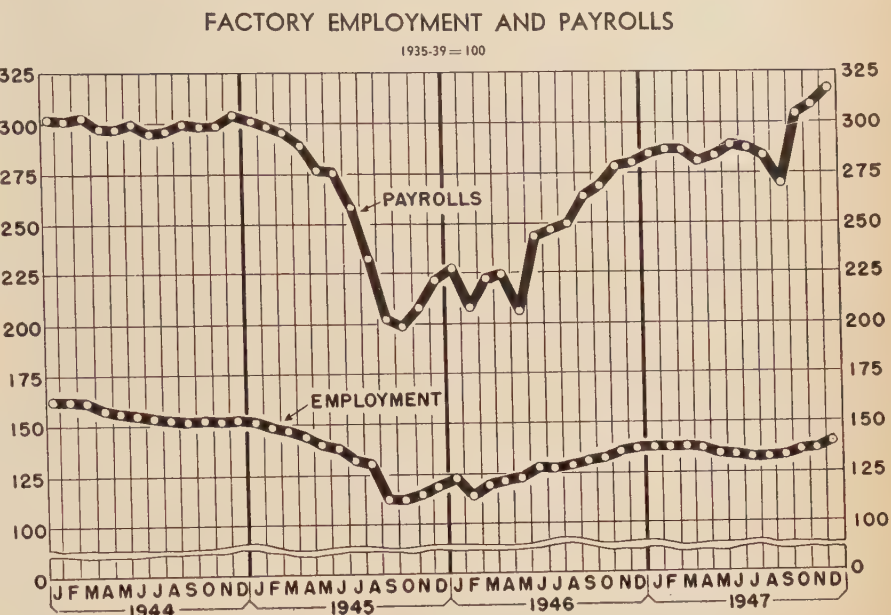
BURLINGTON LINES • Everywhere West

CHICAGO, BURLINGTON & QUINCY RAILROAD • COLORADO AND SOUTHERN RAILWAY • FORT WORTH AND DENVER CITY RAILWAY
THE WICHITA VALLEY RAILWAY • BURLINGTON-ROCK ISLAND RAILROAD

Employment and Payrolls

CHICAGO'S steadily expanding industrial community settled down to twelve months of hard-driving, record-shattering production in 1947. Beyond question, the year brought new peacetime highs in output, employment, and gross factory payrolls. Throughout the year, strikes were fewer in number and decidedly fewer productive workers abandoned their machines to join picket lines. The overall improvement in labor relations, coupled with the increasing availability of raw materials and purchased parts, enabled many of Chicago's nationally known industries—and a significant number of new industries not yet generally identified with the city—to complete a year of virtually uninterrupted production. As a result, Chicago industries contributed vitally toward satisfying the nation's long backlogged demand for consumer goods. From Chicago last year rolled an almost unbroken stream of radios, washing machines, stoves, and refrigerators that by year's end had taken these consumer items and many more from the "scarcity" category and made them at least plentiful throughout the country.

To accomplish this phenomenal record of peacetime production, Chicago manufacturers were obliged to reach deeply into its active labor force. "Scraping the bottom of the barrel" was the most accurate expression to describe the difficulties confronting management in seeking skilled and semi-skilled hands in 1947. Forced as they were to accept less desirable workers, employers nevertheless drove the city's employment level to the highest point in Chicago's peacetime history. Consequently, factory payrolls soared to a new peacetime high exceeding by a large margin even the booming war year of 1943. The factory employment index began the year in January at 136.6 (1935-1939=100) slightly over 14 points above the level of January, 1946. The index climbed to a shade under 137



in February, and stayed above the 136 level throughout the first four months of the year. A gentle decline set in in May, as expiring labor contracts brought on a minor flurry of work stoppages, but after sliding to a low point of 131.9 in August, the index began climbing again, ending the year at the previous January level of 136.6.

Payrolls At New High

During 1947, Chicago industries' factory payrolls mounted to new peacetime heights, reflecting the further rise in wage levels. The factory payroll index began 1947 at 284.5, almost 60 points above the level of the previous January. By last December, the index had climbed to 316.3 establishing at an annual level a peak substantially above the best wartime year. The average for the year, however, was 289.8, as compared with 242.9 in 1946 and 298.9 in 1944, the top war year.

At the year's end, the Chicago area's available labor force was estimated at around 2,600,000 persons, of whom more than 2,500,000 were at work in December, 1947. This tremendous demand for productive manpower probably drove unemployment during the year to the lowest point in the city's recent history. During the last four years, unemployment averaged under 100,000. Last year, it was estimated to have dropped to about 70,000 persons, and the majority of these non-working individuals were probably "between" jobs.

The tight labor situation was also reflected in statistics compiled by the Illinois Department of Labor which show that that agency made fewer job placements in Chicago and its suburbs in 1947 than in 1946. Job placements in Chicago for the year dropped from 107,715 to 72,435. In Chicago and suburbs, the decline was from 123,665 to 86,766. This down trend in job placements has continued steadily since 1944, when the figure was 377,821. In 1945, it dropped to 221,398.

The number of persons filing claims for unemployment compensation dropped to 535,845 in 1947 from 676,496 the preceding year.

A statewide employment survey, conducted by the Illinois Department of Labor, emphasized the increasing undesirability of those individuals considered a part of the active labor force but not actually employed at one time or another during 1947. This survey determined that there were more women, more older persons and fewer veterans among the jobless in 1947. In November,

FACTORY EMPLOYMENT AND PAYROLLS—ANNUAL

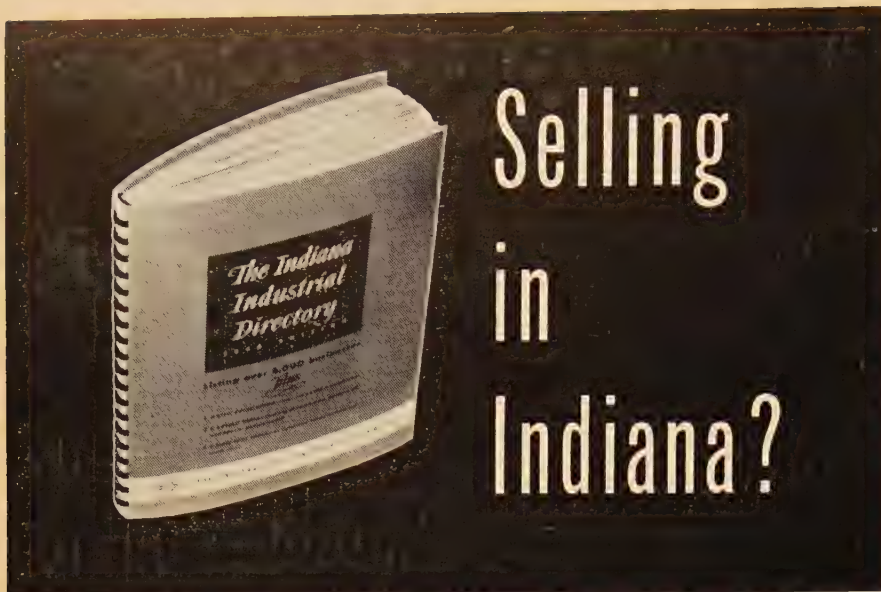
(1935-39 = 100)		
	Employment	Payrolls
1947.....	135.0	289.8
1946.....	126.4	242.9
1945.....	132.3	254.7
1944.....	155.6	298.9
1943.....	155.7	266.2
1942.....	140.9	203.4
1941.....	130.8	162.2
1940.....	108.7	119.0
1939.....	99.1	104.5
1938.....	93.8	93.7
1937.....	115.1	123.1
1936.....	100.4	96.6
1935.....	91.6	82.0

Source: Illinois Department of Labor.

FACTORY EMPLOYMENT AND PAYROLLS—MONTHLY

(1935-39 = 100)				
	1947		1946	
	Employment	Payrolls	Employment	Payrolls
January....	136.6	122.5	284.5	226.6
February...	136.9	114.0	285.9	208.0
March.....	136.5	119.8	285.3	221.3
April.....	136.0	120.8	280.2	224.2
May.....	134.5	123.1	283.3	206.0
June.....	133.8	127.3	288.7	243.1
July.....	132.1	127.3	286.9	245.8
August.....	131.9	128.8	282.8	249.7
September..	133.4	130.5	289.9	263.5
October....	135.4	131.8	304.6	269.0
November..	135.9	135.2	309.2	278.1
December..	136.6	136.1	316.3	280.0

Source: Illinois Department of Labor.



Selling in Indiana?

**Get this complete listing of
men you want to reach with
salesmen or direct mail**

The 1948 Indiana Industrial Directory—just off press—is the most comprehensive reference ever published for those who sell in the Hoosier state. In 250 fact-packed pages (size 8 1/2" x 11") it contains complete data on 8,900 potential customers . . . names of executives . . . detailed information on the 689 cities in which they are located.

More than a mere listing of Hoosier manufacturers, processors and wholesalers, the Indiana Industrial Directory details products, brand names, addresses, executive's names, branch offices and number of employees. Provides a three-way index to 100,000 facts—alphabetical, geographical and by product.

Every salesman covering Indiana—and every sales department—needs a copy of this complete, authentic directory, compiled and published by the Indiana State Chamber of Commerce. Order for every salesman in your organization. Only \$10 (prepaid). Order today.

**INDIANA STATE
CHAMBER OF COMMERCE**

CONTAINS 100,000 FACTS!

PROSPECT GUIDE: Complete, simplified listing of 8,900 manufacturers, processors and wholesalers, classified by products.

CIVIC ENCYCLOPEDIA: Detailed information on 689 Indiana cities and towns, listing location, population, transportation facilities and roads, utilities, banks, newspapers, hotels, radio stations—plus names of executives, products, brand names, branch offices and number of employees for all industries located in those cities.

STATE-WIDE INDEX: Alphabetical listing of manufacturers, processors and wholesalers, enabling you to find any information you need in a matter of seconds.

USE THIS HANDY COUPON!

Indiana State Chamber of Commerce
200 Board of Trade Building
Indianapolis 4, Indiana

Enclosed is check (or money order) for _____ copies of the 1948 Indiana Industrial Directory, @ \$10 per copy (prepaid).

Name _____

Company _____

Address _____

City _____ Zone _____ State _____



1946, of every 100 jobless persons, there were 46 veterans; in November, 1947, only 43 veterans. In November, 1946, the average age of job-seekers was 31½; by November, 1947, it had risen to 33½. In November, 1946, of every 100 jobless persons, 24 were women; in November, 1947, there were 40 women. At the same time, however, employment opportunities were down toward the end of 1947, particularly for women and older persons.

UNEMPLOYMENT COMPENSATION CLAIMANTS

(Cook and DuPage Counties)

	1947		1946	
	U.C.C.*	S.R.A.*	U.C.C.*	S.R.A.*
Jan....	48,754	25,525	81,293	24,700
Feb....	41,026	18,985	68,777	32,876
Mar....	41,982	19,217	60,254	39,118
Apr....	55,132	15,959	70,313	41,358
May....	48,675	14,233	76,881	51,132
June....	52,877	14,982	63,159	43,606
July....	57,558	17,369	54,698	44,421
Aug....	45,883	16,397	45,416	46,280
Sept....	42,129	15,415	39,760	34,785
Oct....	36,333	10,341	42,092	26,567
Nov....	28,242	7,155	33,211	18,258
Dec....	37,254	8,673	40,642	19,797
Total	535,845	184,251	676,496	422,898

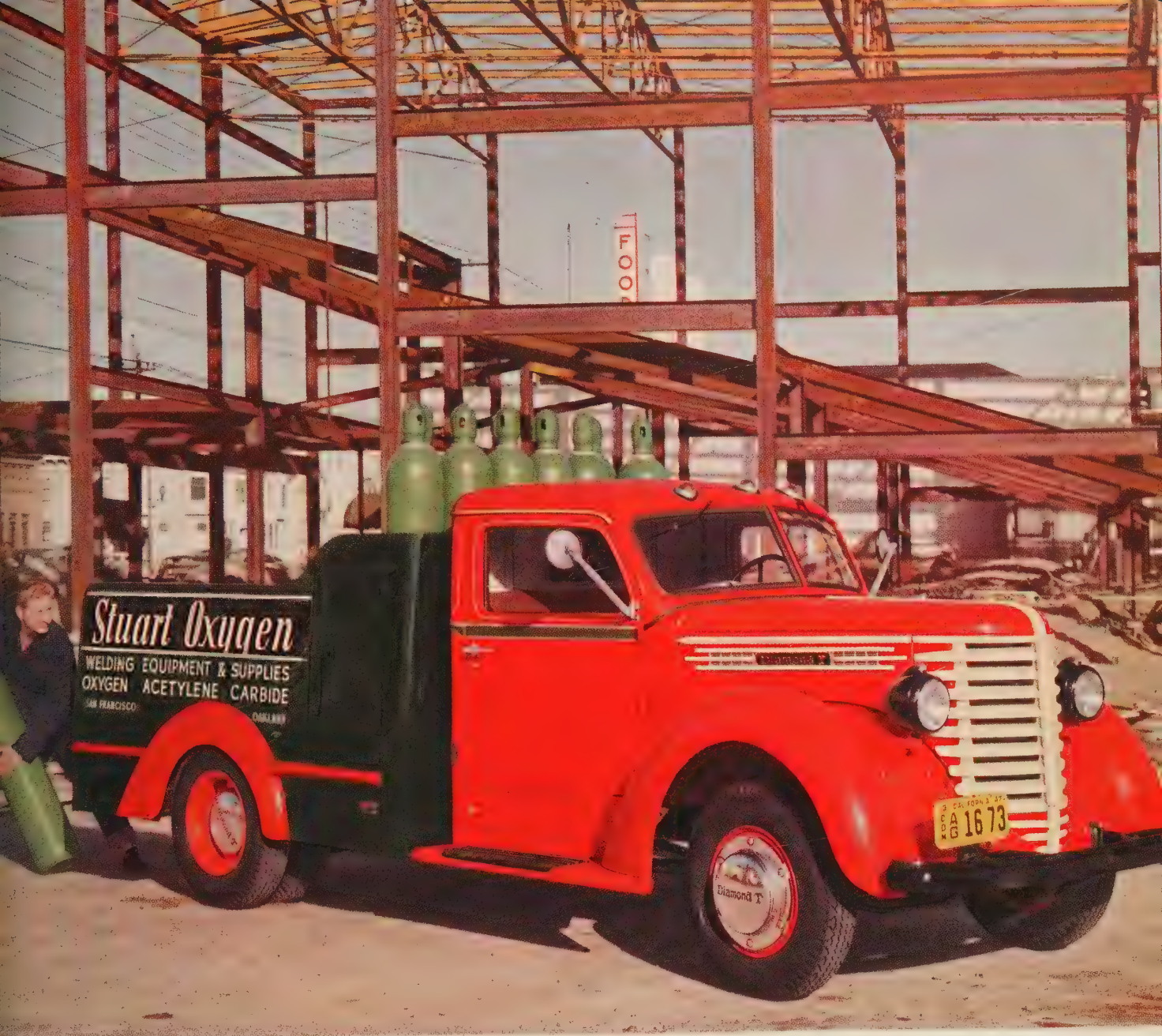
*U. C. C. — Unemployment Compensation Claimants. S. R. A. — Servicemen's Readjustment Allowances.

JOB PLACEMENTS

	Chicago		Chicago and Suburbs	
	1947	1946	1947	1946
Jan....	7,577	10,211	8,956	11,772
Feb....	6,717	7,987	8,068	9,162
Mar....	5,918	6,997	7,126	8,315
April....	5,801	6,460	6,972	7,795
May....	5,974	5,609	7,262	6,706
June....	6,427	6,092	7,702	7,254
July....	5,874	6,580	6,798	7,960
Aug....	4,874	7,561	6,074	8,958
Sept....	5,583	11,785	6,758	13,270
Oct....	6,311	13,691	7,640	15,327
Nov....	5,926	14,147	6,886	15,614
Dec....	5,453	10,595	6,524	11,532
Total	72,435	107,715	86,766	123,665

In appraising the city's tremendous productive accomplishments last year, the Federal Reserve Bank of Chicago declared, "Whether measured in dollar or physical terms, the past year has been a very prosperous one in Chicago. . . . (The city's) position as the second largest industrial area in the nation and the economic capital of the Midwest remains undisputed despite spectacular growth in many other, newer industrial areas. During the past eight years the Chicago area has become the nation's leading electronics center and has challenged—some say equaled — Pittsburgh's position in basic steel. Manufacture of machinery, chemicals, nonferrous metal products, and railroad equipment has grown at record or near record rates."

The bank added, "As would be expected, not all industries in Chicago have grown equally in recent years. Some activities, such as home building, have lagged behind national trends, while others, e.g., radio and communications equipment manufacturers, have moved well ahead of developments elsewhere.



Welders get Oxygen "by the ton" ... with **DIAMOND T** reliability

NO, that's not "hot air," but it is a lot of gas. Of course, the cylinders make up most of the load. A thousand cubic feet of oxygen weighs only about seventy pounds, but it calls for more than 500 pounds of steel "wrapper" to get it to the job.

The people at Stuart Oxygen Co. like their Diamond T's. After seven years and the best part of a million low-cost miles, they choose Diamond T every time—have twelve of them in their fleet now. The picture shows one of the smallest jobs. It's our Model 201, which we rate at only one

ton—but there is not another one-tonner like it on the market.

See your Diamond T dealer when you need new equipment regardless of size. He will be glad to show you the long-life and cost-reducing features that contribute to Diamond T performance records.

See him for service, too. He is a *truck* man, and has the equipment, the parts, and the "know-how" to serve you well.

DIAMOND T MOTOR CAR CO. CHICAGO
Established 1905



DIAMOND T TRUCKS

It's **PARISIAN** For **PLASTICS**

FABRICATORS OF PLASTIC SHEETS

Such As:

CELLULOID

CELLULOSE

ACETATE

VINYLITE

LUCITE

PLEXIGLAS

ETHOCEL

BAKELITE

INSUROK

FORMICA

RIGID AND

FLEXIBLE

LAMICOID

As we enter our 50th year of service to industry we view with pride our ever growing list of customers, many of whom were introduced to the use of advertising specialties by our firm. Many of our initial customers who started using our products 50 years ago are still our biggest consumers today.

When you consult Parisian your plastic problems receive the benefit of 50 years experience in printing and fabricating sheet plastics. This wealth of experience and knowledge is available to you for the asking.

We do not try to make all the plastic products used in Chicago. But, we do try to make those we do produce the best in quality, the best in appearance and at lower cost.

ARE YOU INTERESTED IN PLASTICS?
PHONE VIRGINIA 1212

ADVERTISING SPECIALTIES

RADIO PARTS, SUCH AS

DIALS
CRYSTALS
PUSH BUTTON
WINDOWS
LIGHT DIFFUSERS
DIAL COVERS
COMPUTERS
CALCULATORS
CALENDAR CARDS
BLOTTERS
SIGNS
BUTTONS
RULES
KEY TAGS
LETTER OPENERS
CARD CASES
SPECIAL SLIDE
RULES

**AND OTHER
ADVERTISING
MATERIAL**



Retail and Wholesale Trade Set Records

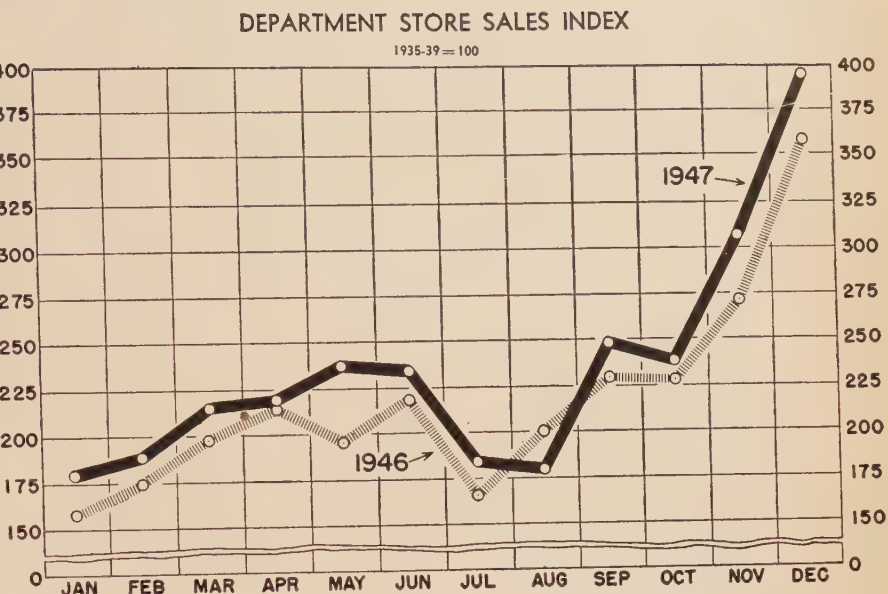
IF DOLLAR VOLUME were the sole criterion, 1947 was another year of record-shattering prosperity for Chicago's retail merchants. Except for the sultry month of August, department store trade, for example, substantially out-distanced the previous year in gross dollar volume, with the index of department store sales averaging 234.2 in 1947 against 216.4 in 1946.

But the true picture of 1947 retail trade was less rosy when the booming dollar totals were realistically appraised. The one outstanding feature of 1947, from the economic standpoint, was the sobering fact that the dollar bill, in Chicago as elsewhere, was being stretched beyond pre-war recognition and consumers were constantly paying more and receiving less.

A federal government evaluation of individual purchasing power in Chicago disclosed that by July, 1947, consumer prices here had risen 60 per cent above 1939. By October, 1947, the same survey revealed, prices had climbed to almost 70 per cent above 1939, although the national price rise was only 64 per cent. In the 16 months from July, 1946, to December, 1947, Chicago's consumer price level had shot up 21 per cent.

In terms of physical or unit volume, retail trade in the Chicago area was actually lower than 1946 during the better part of 1947. A wave of buyer resistance, which gripped most of the nation, struck Chicago retailers in early February sending unit sales on the downgrade. Balking at steadily higher prices, consumers curtailed "non-essential" buying, presumably in the belief that a price break was in the offing.

Although such a price break did not materialize, the price-consciousness of



consumers did exert itself. By midsummer, unit sales had dropped off substantially from the previous year's record levels and during August, as the city sweltered in one of the worst heat waves in its history, even dollar volume slipped below 1946.

Then, as the situation looked the darkest, two events occurred almost simultaneously. Chicago's heat wave suddenly broke and retail sales turned sharply upward again, enabling the city during the last quarter of the year to shake off the eight-month slump. The extraordinary year-end sales spurt, climaxing in Chicago's biggest Christmas selling in history, sent the 1947 retail dollar volume total to an estimated \$3,700,000,000—a new record for the city and up \$400,000,000 from the previous year's record high level of \$3,300,000,000.

These movements in retail trade within the year are sharply reflected in the accompanying tables of department store sales and sales tax collections.

Despite the year-end selling spurt, 1947 witnessed a significant interplay of economic forces that probably spelled the end of a highly abnormal postwar selling era. Although dollar volume touched a new high, obviously that record was principally due to inflated prices. At best, physical volume for the entire year was barely equal to 1946 in most lines. In some, unit sales actually dropped below the previous year.

At the same time, the long process of catching up with the backlog of war and postwar consumer demand seems to have been completed in most lines during 1947. Empty pipe lines filled and spilled over in some industries. By the yearend

buyers' markets appeared in such lines as major household electric appliances (plus some lines of home furnishings), lamps, radios, phonographs, and women's apparel. (The "New Look" in female fashions did revive the garment industry at a dark moment, but, despite ingenious publicity, retailers greeted the innovation warily, refusing to stock heavily on the longer garments until their acceptance was established beyond question.)

Throughout 1947, consumers exhibited greater selectivity in their retail purchases. Housewives insisted upon "pre-

MONTHLY INDEX OF CHICAGO DEPARTMENT STORE TRADE

(Daily average: 1935-39 = 100)

	1947	1946
January.....	179.0	156.8
February.....	188.5	174.7
March.....	215.0	196.3
April.....	217.9	212.3
May.....	235.6	194.0
June.....	233.4	216.8
July.....	182.9	164.3
August.....	178.4	199.7
September.....	246.2	227.9
October.....	237.4	227.3
November.....	305.9	274.4
December.....	393.2	357.4
Year.....	234.2	216.4

ANNUAL INDEX OF DEPARTMENT STORE TRADE IN CHICAGO

(1935-39 = 100)

1947.....	234.2	1941.....	120.7
1946.....	216.4	1940.....	109.4
1945.....	167.4	1939.....	104.1
1944.....	151.4	1938.....	97.1
1943.....	137.6	1937.....	108.4
1942.....	128.2	1936.....	101.4

Source: Federal Reserve Bank of Chicago

COST OF LIVING INDEX IN CHICAGO

(1935-39 = 100)

	1947	1946
January.....	152.9	128.1
February.....	152.6	127.8
March.....	156.2	128.0
April.....	155.6	129.5
May.....	156.6	129.7
June.....	158.3	130.9
July.....	160.1	141.0
August.....	162.7	143.6
September.....	168.3	146.1
October.....	167.3	149.2
November.....	168.3	152.1
December.....	170.1	153.0



- Industrial and Residential lighting fixtures.
- Industrial and Residential electrical supplies.
- Contractors electrical supplies.
- Electrical appliances and specialties.

EFENGEE

ELECTRICAL SUPPLY CO.

663-671 W. Washington Blvd.

Chicago 6, Illinois

AND OVER 1500

15 TRUNK LINES • NO WAITING!

FROM CRYSTAL SETS TO TELEVISION . . .

CONCORD HAS GROWN WITH CHICAGO

Since 1920, the knowledge, skill, and experience of technically-talented Chicagoans plus the many facilities which favor the growth of industry in Chicago have helped the Concord Radio Corporation contribute to the progress of radio and the development of television in America. Today, just as for the past 28 years, Concord serves the complete needs of more than 600,000 customers in every branch of radio, television, and electronics . . . from the smallest ham sets to the largest broadcasting systems . . . in homes, schools and institutions throughout Chicago and the nation. 1948 will be another forward-moving year in electronics, and the Concord Radio Corporation is geared to serve the needs and solve the growing technical problems of electronic-minded Americans everywhere—by catalog—by store.

Concord Radio Corporation

RADIO • TELEVISION • PARTS
INTERCOM SYSTEMS • AMPLIFIERS
HAM GEAR • CAMERAS • RECORDS

CHICAGO, ILLINOIS

901 W. Jackson 229 W. Madison

HAYmarket 0422 CENTral 5971

war quality" and these demands were quickly conveyed through store buyers to jobbers and manufacturers, who began emphasizing the quality of their merchandise. At times during the year, it appeared that buyer resistance to higher prices might crystallize into a full-fledged buyers' "strike," but an increasing awareness that most high prices could not be avoided at the retail level dissipated these trends before they had gathered sufficient strength to cut seriously into dollar volume.

Food Leads Price Rise

Undoubtedly, inflation took its worst toll at grocery and meat markets in 1947. The high cost of living, pushed even higher by the rising price of food, was a predominant factor in reducing "non-essential" buying by consumers. With food prices stepping out ahead of the generally advancing price level, the average Chicago consumer was obliged to spend about 20 cents out of every dollar in the food market as compared with less than 15 cents before the war.

With the squeeze thus on as 1947 ended, the list of real "scarcity" items was reduced to the point where they could be enumerated on one's fingers. Among the harder items to get at year's end: a new car, floor coverings, and candy (which, incidentally, had become plentiful by Valentine's Day, 1948).

WHOLESALE TRADE

IN DOLLAR VOLUME, wholesale trade like retail trade moved sharply upward in Chicago in 1947. Wholesale trade was estimated at a record total of \$10,500,000,000 against \$9,400,000,000 during the preceding year.

In wholesale fields, however, much the same general tendencies toward a buyers' market were felt. Wholesalers who

SALES TAX IN COOK COUNTY*

	1947	1946
January.....	\$ 8,694,430	\$ 6,192,247
February.....	6,037,962	5,227,176
March.....	6,530,169	5,056,360
April.....	7,152,192	5,716,850
May.....	7,014,506	5,750,525
June.....	7,372,719	5,861,110
July.....	7,353,456	6,052,661
August.....	5,701,023	5,803,132
September.....	7,558,905	6,151,501
October.....	7,250,164	6,340,190
November.....	7,420,264	6,719,653
December.....	7,932,957	6,746,213

Total.....\$86,018,747 \$71,617,618

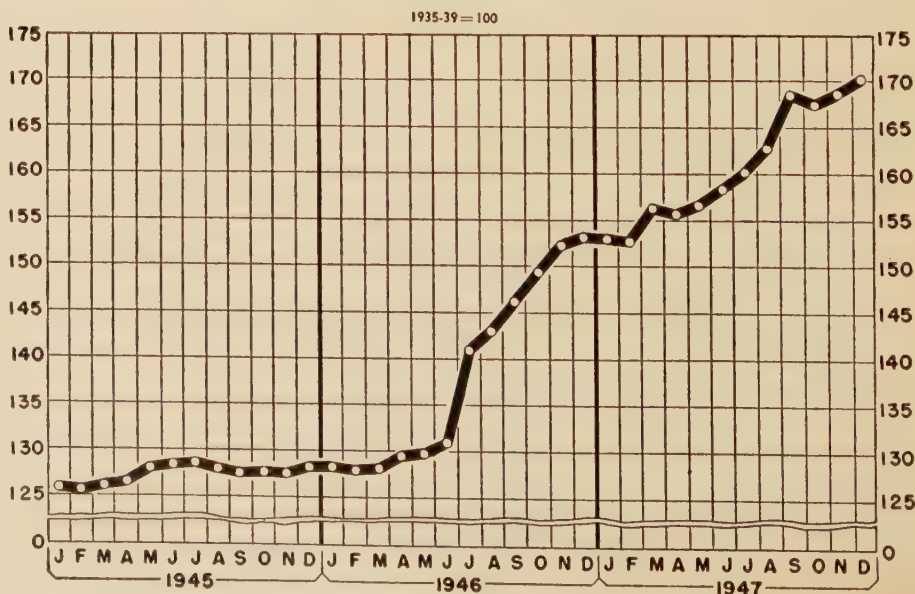
*These figures represent collections by the state on sales taxes paid the preceding month on retail purchases. Thus, the tax figure for January, 1947, reflects the volume of retail trade in December, 1946.

had about forgotten that store buyers were any more than abject supplicants were startled to discover the boom was over and buyers were standing on their feet and talking back. Thus came a brisk revival of merchandising and promotion. With considerably more goods available, many wholesalers once again sent their salesmen on the road and the feverish pressure that had attended war and postwar trade shows in Chicago eased.

In fact, the very knowledge that salesmen were back on the road tended to set a new pattern of more modest buying at the Chicago marts. With goods more plentiful, buyers were more selective and above all were insisting on quality merchandise. In some cases, they left the trade shows without making any significant purchases, satisfied to await the road salesman and thus a more leisurely selection of goods.

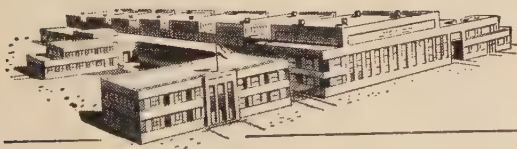
The buyers' market influence was apparent also in the handling of major trade shows in Chicago during the year. In 1946 and previous shortage years, buyers were obliged to shop virtually all the major markets. Last year they could pretty well choose their own markets.

COST OF LIVING INDEX IN CHICAGO





Charging an electric melting furnace



COOKING *Mettle* INTO METAL

An unusual foundry is now in operation at Elyria, Ohio. It's the foundry of the Electro-Alloys Division of Brake Shoe. And its sole function is to combat costly heat and chemical corrosion with special alloy castings. Parts for high temperature furnaces . . . parts for the conveyors that carry products through these furnaces . . . parts for hundreds of other places where heat and corrosion eat up metals.

This foundry had its inception many years ago when Brake Shoe's research engineers and metallurgists first went to work on the problems of heat and corrosion. Later, an experimental foundry was built at Mahwah, N. J. There, known and promising alloys, processes, and foundry practices all were explored toward helping industry wage a more effective war against heat and corrosion.

Today, at Elyria, stands a foundryman's dream, because it permits skilled foundry-

men to produce the best—at *their* best. *It's push-button operated!* Mechanization, wherever possible, lets workmen use their skill instead of their muscles. *It's clean!* Dust and fume removal systems safeguard workers' health; promote maximum efficiency. *It's complete!* From laboratory to pattern shop, from electric arc and induction furnaces to X-ray inspection rooms, no expense has been spared to make the Elyria foundry one of the best equipped in the country.

This foundry's advanced research and manufacturing facilities are now being used by many companies needing castings with superior resistance to heat and corrosion. If *you* face the challenge of making the "Punished Parts" in your plant work longer or better, Electro-Alloys or one of Brake Shoe's other 9 divisions may help find the answer. Your inquiry is invited.

American Brake Shoe Co., 230 Park Ave., N. Y. 17, N. Y.

Ten Divisions of American Brake Shoe Company produce wear-resisting parts in 59 American and Canadian plants.

American Brakeblok Division

American Forge Division

American Manganese Steel Division

Brake Shoe and Castings Division

Electro-Alloys Division

Engineered Castings Division

Kellogg Division

National Bearing Division

Ramapo Ajax Division

Southern Wheel Division

AMERICAN

Brake Shoe

COMPANY



Saves You 83% in Costs!

Triple Economy—One Peirce does the work of three competitive dictation units. And studies made for the government prove conclusively that Peirce saves you 83% on long term usage in competition with conventional disc and cylinder machines. Ask for cost study.

Error-Free Dictation—Perfect fidelity plus "magnetic-erasing" makes dictating smoother, faster.

Transcribing Time Reduced 25%—No cylinders to shave—no breakable records—no clumsy discs.

America's Most Versatile Dictation Machine—Ideal for inventory taking—sales training—recording conferences, telephone conversations—hundreds of other uses.

Write or Phone Today for
Free Demonstration or Trial

ANDREWS & DRUMMOND

624 South Michigan Ave.

Suite No. 716 WABash 1341

GUS BERTHOLD ELECTRIC CO.

Mfrs. of
ELECTRIC LIGHT
and
POWER
SWITCHBOARDS,
PANELBOARDS,
STEEL CABINETS
and
CONTROL
EQUIPMENT

1716 W. Hubbard St.
CHICAGO 22
CHesapeake 5767

Thus, the Chicago trade shows were obliged to step up their own promotion to prevent a drop in attendance. As retail buying slid downward early in the year and inventories came under more rigorous control, many buyers who visited Chicago were less insistent upon early delivery dates. This conservative tendency, however, had ill effects later in the year when retail buying picked up suddenly and many retailers came back into the market seeking immediate delivery on large stocks which by then were not available.

In many wholesale lines, the wartime

quota and allocation systems of manufacturers remained in effect during 1947, but as often as not the "quota system" existed in name only. Quotas were generally more liberal and few buyers actually suffered from allocation shortages.

The year was marked by the establishment in Chicago of one new resident buying organization, thus increasing the city's predominance as a wholesale buying center. Chicago's resident buying offices now make purchases estimated at \$150,000,000 a year for more than 5,500 of the nation's department and specialty stores.

POSTAL ACTIVITY

THE post office invariably is one barometer of business activity and statistics compiled by the Chicago Post Office indicate that the tempo of Chicago business continued to rise significantly in 1947. Postal receipts during the year aggregated \$94,966,706.18, marking a 10.94 per cent increase over 1946.

The biggest increases were recorded in the parcel post department. Incoming parcel post jumped from 5,433,179 to 7,006,161 sacks, a rise of 28.95 per cent. Outgoing, the rise was 20.33 per cent, from 21,272,358 sacks in 1946 to 25,598,395 sacks in 1947.

Curiously, Chicago received substantially more first class mail in 1947, although outgoing first class held virtually unchanged. The statistics: incoming first class mail up 21.84 per cent from 1,281,927,068 to 1,561,994,174 pieces; outgoing first class up 0.36 per cent from 1,351,091,861 to 1,355,959,840 pieces.

Indicative of the returning normalcy in world communications and trade was

the steadily increasing number of international money orders paid by the Chicago Post Office in 1947. The total payments were \$200,486, up 9.19 per cent from 1946. Domestic money order payments were up slightly from \$378,623,646 to \$380,497,496.

Increases were also registered in postal savings activities and in miles traveled by post office motor vehicles.

Again, for the second successive year, the sale of United States Savings Bonds by the local post office declined. Total 1947 sales amounted to \$16,131,825, down 8.19 per cent from the 1946 level. Last year there were only 276,069 bonds sold as compared with 334,806 in 1946. Postal savings behaved in exactly reverse fashion, however, with the total in these deposits rising from \$216,368,451 in 1946 to \$227,642,378 in 1947. This was a 5.21 per cent increase.

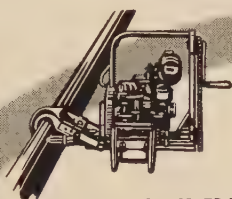
A comparison of 1946 and 1947 postal statistics for Chicago follows:

	1947	1946	Per Cent Gain
Postal Receipts.....	\$ 94,966,706.18	\$ 85,603,975.95	10.94
Outgoing Mails:			
First Class, pieces.....	1,355,959,840	1,351,091,861	.36
Circulars, pieces.....	666,904,666	691,691,873	3.58*
Parcel Post, sacks.....	25,598,395	21,272,358	20.33
Other Classes, sacks.....	9,578,723	9,099,182	5.27
Incoming Mails:			
First Class, pieces.....	1,561,994,174	1,281,927,068	21.84
Circulars, pieces.....	120,231,048	117,496,989	2.32
Parcel Post, sacks.....	7,006,161	5,433,179	28.95
Other Classes, sacks.....	6,280,986	4,963,441	26.54
Domestic Money Orders Issued:			
Amount.....	\$ 62,216,608.18	\$ 58,030,849.88	7.21
Transactions.....	3,230,266	3,330,819	3.01*
International Money Orders Issued:			
Amount.....	\$ 671,357.23	\$ 708,553.85	5.24*
Transactions.....	34,220	34,782	1.61*
Domestic Money Orders Paid:			
Amount.....	\$380,497,496.26	\$378,623,646.29	.49
Transactions.....	35,077,917	35,488,195	1.15*
International Money Orders Paid:			
Amount.....	\$ 200,486.41	\$ 183,597.56	9.19
Transactions.....	13,372	13,376	.02*
Postal Notes Sold:			
Amount.....	\$ 9,798,120.75	\$ 6,224,670.04	57.40
Transactions.....	1,960,713	1,307,683	49.89
Postal Notes Paid:			
Amount.....	\$ 29,130,384.66	\$ 17,863,812.82	63.06
Transactions.....	5,748,513	3,698,045	55.44
United States Savings Bonds:			
Amount Sold.....	\$ 16,131,825.00	\$ 17,571,300.00	8.19*
Number Sold.....	276,069	334,806	17.54*
Postal Savings:			
Amount on Deposit.....	\$227,642,378.00	\$216,368,451.00	5.21
Number of Depositors.....	308,259	305,467	.91
Motor Vehicle Service:			
Miles Traveled.....	8,536,145	7,829,709	9.02

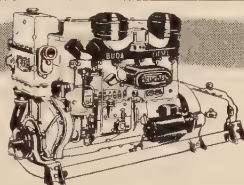
*Decrease.

BUDA

Quality products



BUDA POWER TRACK DRILLS... for faster, easier drilling of bolt holes in any weight railroad rail.



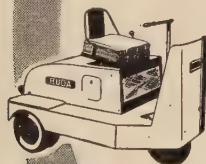
BUDA DIESEL AND GASOLINE ENGINES... for automotive, industrial, marine and generator service. Complete line, 5 to 340 H.P., max. Generator sets from 2½ to 125 K.W.



BUDA RAIL BENDERS... for accurate bending of heavy stock and guard rail bends by one man, in the field.



BUDA CHORE BOYS... industrial shop truck of a "thousand uses", built in ½ and 1 ton capacities, for fast low cost material handling. Powered with air-cooled gasoline engine.



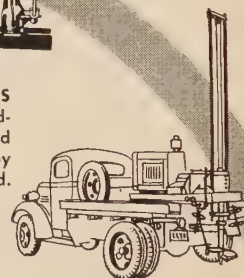
BUDA CHORE BOY TRACTORS... low cost towing - pulls 5 or 6 trailers each carrying 2000 lbs. Air-cooled gasoline engine.



BUDA UNIVERSAL NOZZLE TESTERS... accurately tests all makes of Diesel nozzles and injectors. Low cost, easy to operate. Portable.



BUDA LIFTING JACKS... wide range of hydraulic and mechanical models, in capacities from 3 to 75 tons.



BUDA EARTH DRILLS... available for truck, trailer, tractor or skid mounting. Gasoline engine powered, drills small diameter holes 100 ft. deep, 42 in. diameter holes 10 ft. deep. Fast, low cost operation.

*serve
Industry
throughout
the
world!*

BUDA

HARVEY (Chicago Suburb) ILLINOIS

Call or write for further details and literature covering any or all of these BUDA Quality Products.



COMMERCIAL REAL ESTATE

Managers. Consultants. Appraisers

Seven Decades of Experience

in the

MANAGEMENT, DEVELOPMENT, and

MODERNIZATION of

BUSINESS PROPERTIES

ALDIS & COMPANY
53 West Jackson Boulevard
CHICAGO 4

Telephone: Harrison 0260

Mountain Valley Mineral Water
From Hot Springs, Ark.

37 Years in Chicago

Mountain Valley Water Co.
 416 W. Ontario St. • DELaware 4384
 CHICAGO 10, ILL.

• Tools and Dies •

Congress Tool & Die Works
 430 S. GREEN ST. CHICAGO 7
 MONROE 1456

NOTICE!

When You Need Extra Men For:

- MATERIAL HANDLING (all kinds)
(You Name It)
- UNLOADING OR LOADING
FREIGHT CARS, TRUCKS, ETC.
- CASUAL LABOR—ODD JOBS,
CLEAN-UP WORK, ETC.

TELEPHONE:

WHitehall 5313 (5 Phones)

This service furnished on short notice and on a daily basis. Men selected for your particular need. We pay the men, handle all pay roll and personnel records, pay all insurance consisting of Unemployment Compensation Benefits, Workmen's Compensation and Social Security. No job too large or too small. Man-hour cost to you very low.

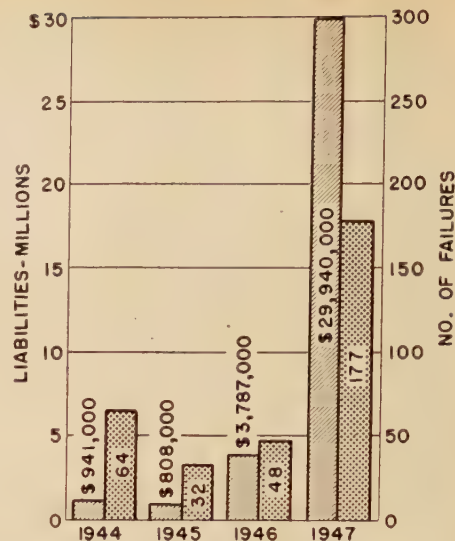
THIS SERVICE IS USED REGULARLY BY
 HUNDREDS OF LEADING INDUSTRIES

AMERICAN STEVEDORES CO., Inc.

SERVICE OFFICE: 510 N. STATE ST. • CHICAGO 10, ILLINOIS



BUSINESS FAILURES



BUSINESS FAILURES RISE

BUSINESS failures in Chicago moved sharply upward last year from the record low levels established in 1945 and 1946. Even more significant, however, were the distinctly higher liabilities left by failing business concerns. Last year, 177 Chicago concerns succumbed with a potential loss to creditors of \$29,940,000. This compared with 48 failures in 1946 and the historic low figure of 32 failures recorded in 1945.

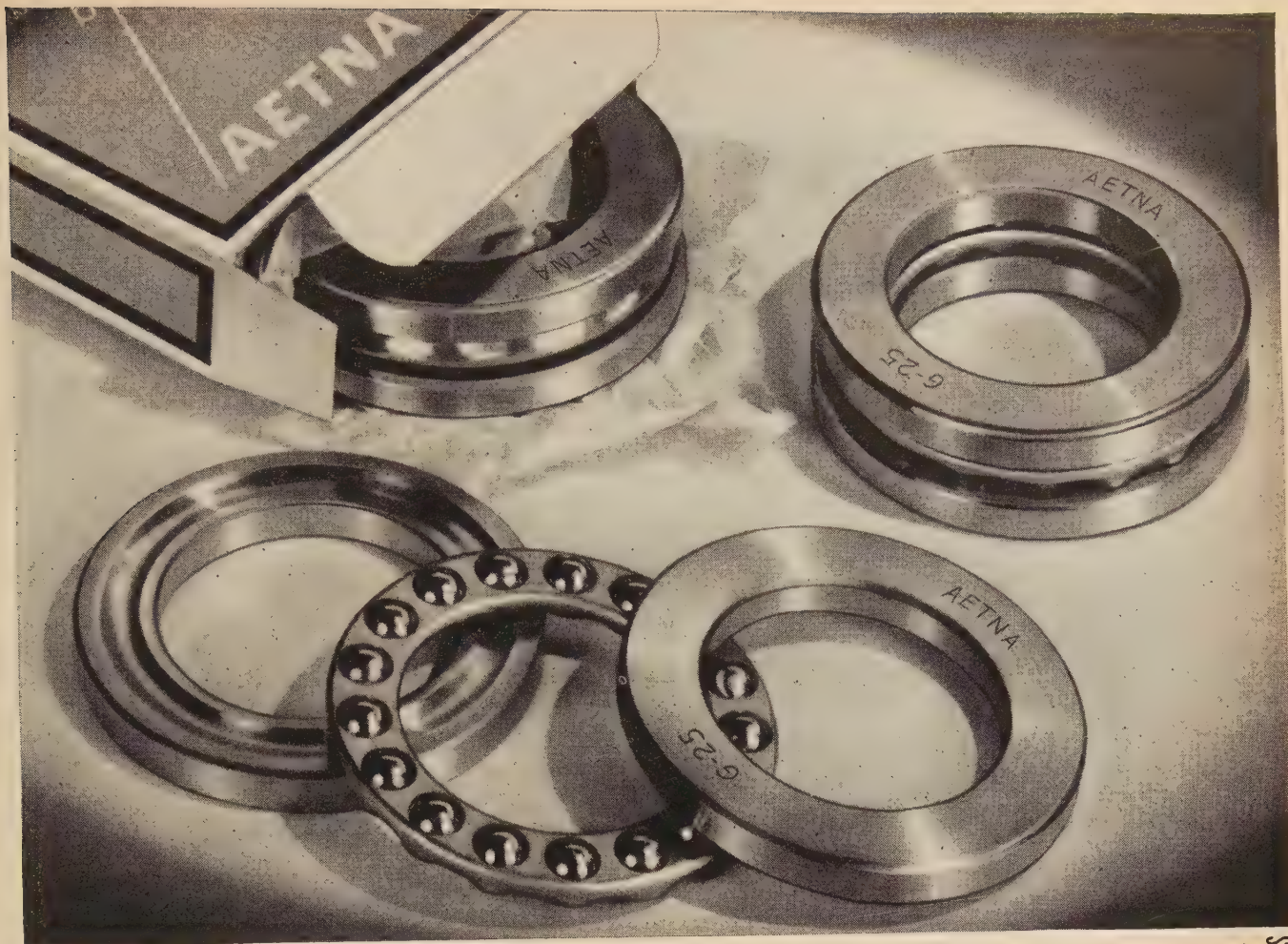
The liabilities of failing concerns in 1947 averaged nearly seven times those of the 1945 failures. The average loss to creditors for each of the 1947 failures was \$169,000, in 1946 the average liability loss was \$79,000, and in 1945 the average was only \$25,000. This decided increase in unpaid debts reflected steadily rising business costs as well as expensive inventories and factory investments.

Despite the upward level of business failures in 1947, the rise was by no means alarming, particularly in view of the extraordinary increase in new business ventures since the end of the war.

CHICAGO BUSINESS FAILURES

	1947		1946	
	No.	Liabilities	No.	Liabilities
Jan.....	7	\$ 195,000	6	\$2,114,000
Feb.....	10	550,000	4	46,000
March....	12	1,375,000	3	38,000
April.....	16	642,000		
May.....	27	1,283,000	1	35,000
June.....	18	6,553,000	4	237,000
July.....	14	1,686,000	2	27,000
Aug.....	12	439,000	7	338,000
Sept.....	10	884,000	4	112,000
Oct.....	19	1,421,000	6	68,000
Nov.....	14	261,000	4	604,000
Dec.....	18	14,651,000	7	168,000
Total..	177	\$29,940,000	48	\$3,787,000

Note: Dun and Bradstreet defines a failure as follows: "A business failure, as defined for this record, occurs when a commercial or industrial enterprise is involved in a court proceeding or a voluntary action which is likely to end in loss to creditors."



Always A GOOD INVESTMENT

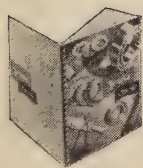
You can always count on Aetna Bearings to bring big returns for the little you invest in them. And the deeper you install them in the machines you make or use the more you'll appreciate them, profit-wise.

Why? Because Aetna quality is deeper, more reliable, longer lasting. That means greater efficiency, negligible maintenance, longer machine life.

Today's crisis-need for speedier production—and the greater machine dependability that must go with it—places top priority on quality when it comes to bearing selection. This explains today's record demand for Aetnas, why design engineers are entrusting more and more vital applications only to bearings carrying the name Aetna—the name that stands for perfection, superlative accuracy; utmost in quality bearing craftsmanship.

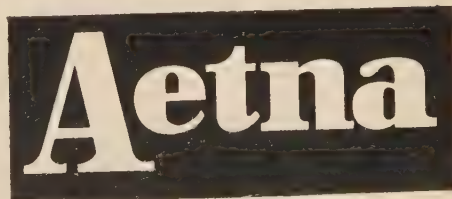
Your equipment too deserves the best in bearings. Try Aetnas.

AETNA BALL and ROLLER BEARING COMPANY
4600 Schubert Avenue • Chicago 39, Illinois



NEW ENGINEERING CATALOG . . . FREE!

Contains new standard items . . . useful calculations and formulae, application principles, lubrication guides—a data-packed, valuable reference book. Write for Your copy, on your company letterhead, TODAY!



STANDARD AND SPECIAL BALL THRUST BEARINGS • ANGULAR CONTACT BALL BEARINGS • SPECIAL ROLLER BEARINGS •

BALL RETAINERS • HARDENED AND GROUND WASHERS • SLEEVES • BUSHINGS



BRINGING BUSINESS TO CHICAGO

Biggest single factor in maintaining Chicago's supremacy as a buying center is The Merchandise Mart.

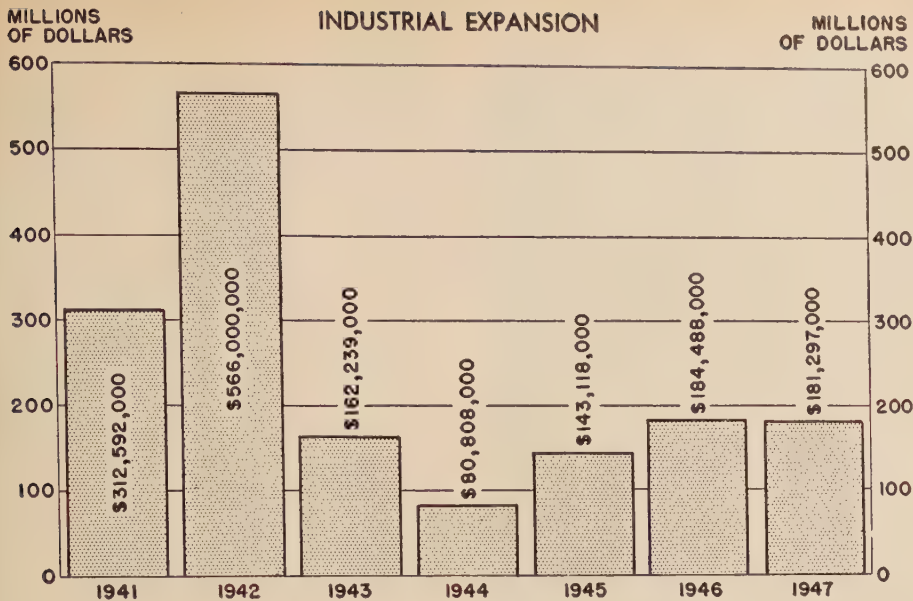
The thousands of different lines displayed in this building represent the greatest concentration of merchandise under one roof in all the world. Like a powerful magnet, this enormous array attracts more than 400,000 visits annually by the store owners and merchants of America.

This great volume of buyer traffic benefits, directly or indirectly, every Chicagoan.

THE MERCHANDISE MART

"Centered for Efficient Buying and Distribution"

CHICAGO



New Plant Building Holds High Pace

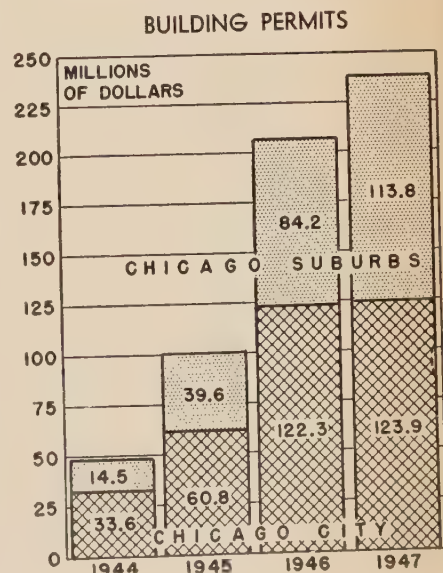
INVESTMENT in new and expanding industrial facilities in the Chicago area last year remained near the high level attained in 1946. Total expenditures for plant facilities amounted to \$181,297,000, almost on a par with the peacetime record of \$184,488,000 established in 1946. A total of 360 building projects were announced in 1947, exceeding the number in any previous year on record.

New plants constructed last year numbered 117, with a value of \$60,445,000. This exceeds the previous year's record both in number and value, the total for 1946 being 101 projects valued at \$50,723,000. Some of the more important construction jobs were undertaken in 1947 by: Westinghouse Electric Corporation; Sinclair and Valentine Company, a plant for the manufacture of printing inks; Hotpoint, Inc., a new unit to expand electric range production; Swift and Company; an industrial oil processing plant at Hammond; Keyes Fibre Company, a branch plant for manufacturing molded paper products; A. B. Dick Company, a new headquarters in Niles; H. C. Fischer and Company, a plant in Franklin Park for the production of X-ray and surgical equipment; H. M. Harper and Company, a plant in Morton Grove for manufacturing non-ferrous screws, bolts, and nuts; Motive Equipment Manufac-

turers, an automotive parts plant; Middeby-Marshall Oven Company, a Morton Grove plant for the production of commercial baking ovens; Baxter Laboratories, a plant in Morton Grove; J. M. Huber Corporation, a printing ink plant in McCook; R. R. Donnelley and Sons Company, a third Chicago unit; H. J. Heinz Company, a food processing and warehousing plant; Hamilton Glass Company, a plant at 2768 West Grand avenue; Mojonner Brothers, a dairy equipment plant in Summit; West Disinfecting Company, a new plant at 47th and Kedzie avenue; G. J. Nikolas and Company, Inc., a plant in Bellwood for manufacturing lacquers and finishes; Florsheim Shoe Company, a new building at Canal and Adams streets; Gary Paper Mills, a Gary plant to reclaim newsprint; Vandercook and Sons, Inc., a printing machinery plant in Lincolnwood; Federal Tool Company, a plant in Lincolnwood; Lighthouse Trailer Company, a house trailer plant in Evanston; Henry Valve Company, a plant in Desplaines; Automatic Sprinkler Corporation of America, a plant at 5540 North Wolcott street; Bodine Electric Company, a new Chicago unit for FHP motors at Addison street and California avenue.

Many existing plants were enlarged

last year to accommodate increased production schedules. The investment in such expansion programs amounted to \$105,305,000. Some of the larger projects were announced by: Carnegie-Illinois Steel Corporation, which undertook to double the capacity of three of its Chicago area blast furnaces and modernize much of its existing equipment; Acme Steel Corporation, which added to its steel strip capacity and instituted further modernization and expansion projects; Helen Curtis Industries, which began a large addition to its recently purchased plant at 505 North Sacramento boulevard; International Harvester Company, which expanded and modernized its West Pullman works; Inland Steel Company, which expanded its sheet rolling and cold strip mill facilities; Youngstown Sheet and Tube Company, which began installing a new battery of 75 coke ovens; Electro-Motive Corporation, which continued to expand its facilities, as did Corn Products Refining Company, E. J. Brach and Sons Company, which launched a large addition to its candy plant; Standard Oil Company of Indiana, which started construction of a catalytic cracking unit at Whiting; American Bridge Company, which expanded its capacity for structural steel; American Steel and Wire Company, which made large additions to its Waukegan plant; Clayton Mark Company, which expanded its Evanston plant; United States Steel Products Company, which added to its steel drum production capacity in Dolton; Clearing Machine Corporation, which added materially to its plant capacity; G. D. Searle and Company, which constructed two buildings adjacent to its Skokie works; and Abbott Laboratories, which continued to expand its North Chicago works. Other expansion projects were announced by Agar Packing and Provision Corporation, Sterling Hardware Manufacturing Company, Goodman Manufacturing Company, Columbia Tool Steel Company, Darling and Com-





Crane Chicago Works, the world's largest valve and fitting plant.

Valves • Fittings • Pipe Plumbing and Heating

CRANE

Crane Co., General Offices: 836 S. Michigan Ave., Chicago 5, Ill.

**NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS,
PLUMBING AND HEATING CONTRACTORS**

pany, and General American Transportation Corporation.

Purchases of industrial real-estate during 1947 represented a dollar value of \$14,572,000. The following are some of the more important transactions: United States Rubber Company entered the Chicago area with its first manufacturing unit by purchasing the Helene Curtis building at Pulaski Road and Schubert avenue; Upjohn Company purchased its first Chicago unit at 1001 East 87th street; Ahlberg Bearing Corporation purchased the DPC plant it operated during the war; General Motors Corporation, Delco Radio Division, acquired 160,000 square feet of manufacturing space on West 51st street in the Clearing Industrial District for the manufacture of car radios; Barrett-Cravens Company purchased a plant on South Western avenue, formerly occupied by Electric Storage Battery Company, which is now concentrating on the manufacture of material handling equipment; Electric Storage Battery Company of Philadelphia bought the former war plant of Foote Brothers Gear and Machine Company; Western Electric Company acquired additional space in the Central Manufacturing District for expanded telephone equipment production; William J. Stange Company purchased a building at 342 North Western avenue for its food products processing; Zenith Radio Corporation purchased a structure on Washington boulevard and Sangamon street; Victor Adding Machine Company purchased a three-story war plant adjoining its present factory; Victor Manufacturing and Gasket Company purchased a five-story and basement building at 37th and South Iron streets; Buda Company acquired a building at 71st and Wabash avenue; Ampro Corporation purchased a four-story and basement building at 2845 North Western avenue for moving picture projector assembly.

Newcomers To Chicago

Many of these firms have not before had manufacturing facilities in the Chicago area or are newly-organized firms. This classification included United States Rubber Company, Upjohn Company, Weston Engineering Company, American Meter Company, Inc., Thompson-Hayward Chemical Company, Rose-Derry Company, Gary Paper Mills, Philharmonic-Chicago, Inc., Automatic Sprinkler Corporation of America, Harvill Mid-West Corporation, and many others.

Since the beginning of the defense program in July, 1940, the Chicago industrial area has experienced the greatest investment in industrial plants and facilities of any industrial area in the nation. With a wartime investment in government-owned plants of \$1,166,970,000, the total of all industrial investment in plant facilities from July, 1940, through December, 1947, amounted to \$1,608,-

For Safety USE DIENER OILY WASTE CANS



For strict safety, economy and extreme efficiency in store, factory, shops or garage, equip with Diener "Quick Service" Oily Waste Cans. Simple in construction, easy to operate and positive in action. Pop-up, self-closing lid opens by foot pedal, or may be hand-operated. Recommended by insurance men to reduce fire losses.

"Protection": Non-Explosive Safety Cans Feature

NON-EXPLOSIVE • SIMPLE • POSITIVE • FOOL-PROOF • COIL SPRING • HEAVY DRAWN STEEL SPOUT • AIRTIGHT • STURDY STREAMLINE HANDLES

GEO. W. DIENER MFG. CO.

420 N. Monticello Ave.

VAN Buren 7070

Chicago 24, Ill.



159,000. Even with this tremendous expansion of wartime and postwar plant facilities, industrial space in Chicago continues at a premium. Thus, many additional expansion programs are contemplated for 1948. If business conditions and industrial production in the Chicago area remain at a high level, it is reasonable to assume that expansion of facilities will continue near last year's level.

Despite sharply higher prices, building activity increased substantially in the Chicago area last year. Building permits issued in Chicago and its suburbs during 1947 numbered 27,969, representing an aggregate investment of \$237,649,000. The dollar volume was up 15 per cent over 1946.

Some indication of the increased cost of home building in the Chicago area last year could be drawn from a comparison of the average dollar value of building permits. In 1945, the average value represented by each residential building permit was about \$7,100. In 1946, this average moved up to \$8,600, but last year it climbed to \$10,600. Thus, although the dollar value of new residential construction increased 40.4 per cent last year, the actual number of new homes contemplated increased only about 12 per cent.

The influence of higher building costs was further apparent in the fact that although total new construction increased

in 1947, it was nothing like the increase between 1945 and 1946. During the latter year the dollar volume increased

more than a hundred per cent over 1945 and the number of new building permits increased 41 per cent.

NEW AND EXPANDING INDUSTRIAL PLANTS IN THE CHICAGO INDUSTRIAL AREA, 1947-46

	New Factories		Factories Expanding		Value of Expansion Programs and New Factories	
	1947	1946	1947	1946	1947	1946
January.....	14	9	25	31	\$ 4,867,000	\$ 10,470,000
February.....	13	12	23	25	14,210,000	11,885,000
March.....	10	11	20	20	13,089,000	14,823,000
First Quarter.....	37	32	68	76	\$ 32,166,000	\$ 37,178,000
April.....	13	6	21	18	\$ 31,517,000	\$ 12,578,000
May.....	7	11	25	25	10,239,000	25,243,000
June.....	8	6	19	15	15,630,000	9,685,000
Second Quarter.....	28	23	65	58	\$ 57,386,000	\$ 47,506,000
July.....	11	5	23	17	\$ 16,541,000	\$ 24,586,000
August.....	9	5	25	15	17,025,000	5,621,000
September.....	10	6	16	19	17,278,000	29,060,000
Third Quarter.....	30	16	64	51	\$ 50,844,000	\$ 59,267,000
October.....	7	10	17	26	\$ 15,253,000	\$ 8,616,000
November.....	9	8	11	19	16,057,000	26,495,000
December.....	6	12	18	23	9,591,000	5,426,000
Fourth Quarter.....	22	30	46	68	\$ 40,901,000	\$ 40,537,000
Total.....	117	101	243	253	\$181,297,000	\$184,488,000

BUILDING PERMITS AND VALUATIONS, 1947-1945

Chicago and Suburbs	1947		1946		1945		Increase in 1947 Value From 1946
	Number	Value*	Number	Value*	Number	Value*	
Residential.....	11,747	\$125,861	10,458	\$ 89,637	6,278	\$ 44,480	40.4
Non-residential...	6,859	72,607	5,808	88,044	3,706	38,884	17.5†
Addition.....	9,363	39,181	9,566	28,905	8,300	17,006	35.6
Total.....	27,969	\$237,649	25,832	\$206,586	18,284	\$100,370	15.0

*000 omitted.

†Decrease.

Source: Illinois Department of Labor.

Makers of fine meat products
since 1883

**OSCAR MAYER
& CO.**

Chicago

Madison

U. S. GOVERNMENT INSPECTED

UNIQUE OPPORTUNITY . . .

FOR MIDWESTERN MANUFACTURERS

—Interested in reducing
cost of present export business

—Considering exporting
products at lowest possible cost

EXPERIENCED Chicago exporter can
make room for a few additional
automotive, hardware or related lines
to be handled by our efficient, well-
trained staff.

1. Our extensive network of foreign
sales representatives guarantees best
results—we have produced \$2,000,000
in yearly business for one firm alone.

2. A Chicago exporter cuts time and
cost of long-distance communication
for a midwestern factory, makes more
frequent, easier personal consulta-
tions possible.

3. We unconditionally guarantee that
your cost will be lower than what you
may now be paying.

Since we can accommodate only a
few select lines, it is advisable to
avail yourself of this opportunity as
soon as possible.

WRITE FOR DETAILS:

Commerce Magazine
1 No. La Salle St.
Chicago 2, Illinois
Box 720

MEN TECHNICAL WOMEN

Executive Sales Office

REDFIELD PERSONNEL SERVICE

CENtral 5602

5 S. WABASH AVE.

CHICAGO 3

Strike Time Loss Down

THE number of labor controversies in Chicago increased very slightly during 1947. The total recorded in data compiled by the Chicago Association of Commerce and Industry was 467, a rise of about two per cent from the previous year's total of 453 controversies. Although the total number of labor disputes rose during the year, fewer employees were involved than during 1946. In 1947, the number of persons who went on strike in the city totaled 39,705, or about 20 per cent of the 198,905 persons involved in labor controversies. This represented a sharp drop from 1946, when the number on strike was 186,883, or about 40 per cent of the 467,894 persons involved in disputes.

By far the majority (71.5 per cent) of all labor disputes that arose in Chicago during 1947 lasted for less than one month, and about 95 per cent of the disputes were resolved in two months or less. In the previous year, about 15

per cent of the labor controversies ran for a longer period.

Principal factors in the increasing frequency of labor disputes in 1947 were the larger number of controversies arising out of organizing activities and labor board elections, either held or petitioned for. At the same time, however, the number of actual strikes decreased slightly, falling from 216 in 1946 to 198 in 1947. Jurisdictional disputes were also down from 28 in 1946 to 22 in 1947.

In 1947, the greatest number of strikes in effect in any month was in May, when 43 were in progress at various times. The month is becoming noteworthy, incidentally, as the outstanding one for labor difficulties, for in 1946 May also witnessed more strikes than any other month of the year. Last year's low point was reached in September when only 13 strikes were in progress.

Final statistics covering actual Chicago strikes during 1947, confirmed a three

LENGTH OF STRIKES

No. of Months	1947		1946		1945	
	Number	Percentage	Number	Percentage	Number	Percentage
1 (or less)	334	71.52	339	75.00	342	74.21
2	105	22.49	47	10.30	21	4.58
3	9	1.93	39	8.54	11	2.40
4	3	.64	14	3.07	5	1.10
5	1	.21	4	.88	5	1.10
6	1	.21	1	.22	2	.46
7	2	.43	4	.88	1	.23
8 . . . . .	..	..	..	..	9	1.98
9 . . . . .	..	..	..	..	4	.88
10 . . . . .	..	..	..	..	1	.23
11	1	.21	..	..	..	..
12 . . . . .	..	..	..	..	13	2.83
Pending Dec. 31	11	2.36	5	1.11	46	10.00
Total	467	100.00	453	100.00	460	100.00

year trend toward generally improving labor relations. In 1945 the total number of actual strikes in Chicago numbered 251; in 1946 the figure fell to 216; and last year it dropped to 198.

NUMBER OF STRIKES IN CHICAGO

	1947	1946	1945
January	15	13	10
February	38	9	12
March	34	23	51
April	36	22	10
May	43	25	11
June	28	10	10
July	20	8	66
August	28	20	7
September	13	14	24
October	15	22	20
November	20	9	27
December	14	1	3

TYPE OF STRIKE

	1947	1946	1945
Organizing activities . .	142	120	72
Actual strikes	198	216	251
Threatened strikes . . .	55	55	73
Jurisdictional disputes.	22	28	6
Labor Board Elections (Held or Petitioned for)	29	20	21
Miscellaneous	21	17	38
Total	467	456	461

HARRINGTON & Co.

Confidential representation in purchase or sale of GOING BUSINESS CONCERN

We conduct negotiations, supply data, in manner
to protect interests of all parties.

Specializing in industrial and business property
since 1907.

Any Chicago Bank as Reference

7 S. Dearborn St.

CHICAGO 3

FINancial 1322



New outfits for the *Hiawathas*

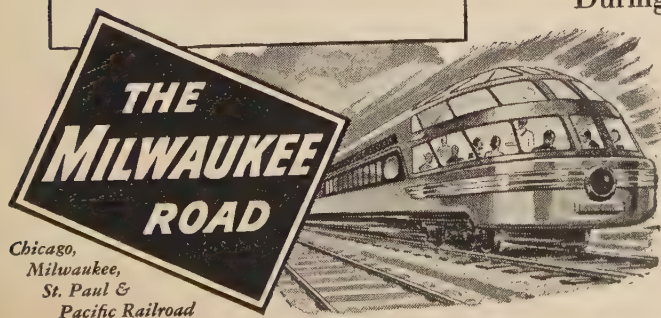
Hiawathas serve

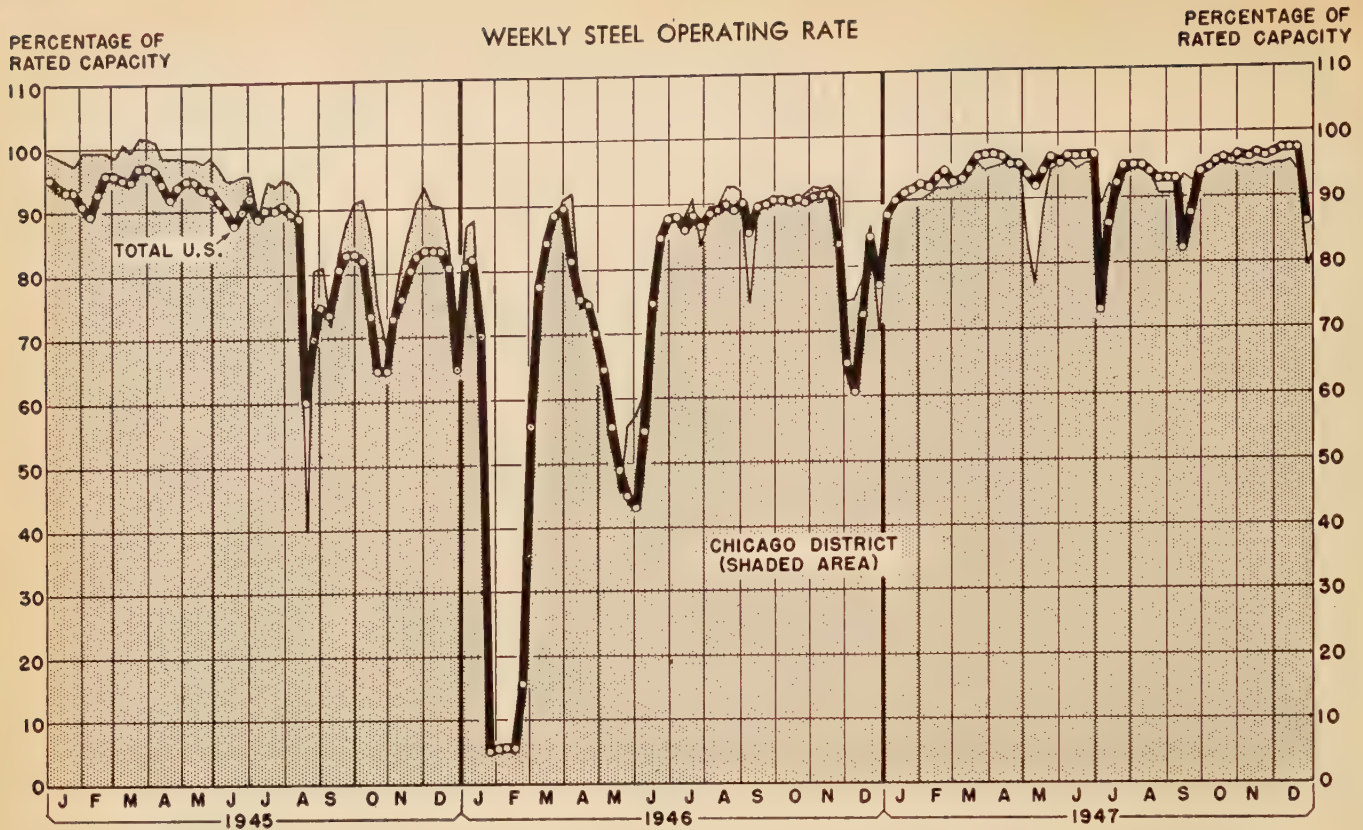
**CHICAGO • MILWAUKEE
ST. PAUL • MINNEAPOLIS
BUTTE • SPOKANE
SEATTLE • TACOMA
DES MOINES • OMAHA
SIOUX CITY • SIOUX FALLS
and 60 other stations**

Within a few weeks the AM and PM HIAWATHAS between Chicago-Milwaukee and St. Paul-Minneapolis will step out with new equipment from end to end. There'll be squeals of delight from the HIAWATHA tepee.

And no wonder! Coming will be brighter, handsomer coaches with spacious lounge rooms . . . radio-equipped Tip Top Tap cars for beverages and snacks . . . diagonal-seating dining cars . . . luxurious parlor cars with drawing rooms and, for the first time, glass-roofed Skytop Lounges.

During the year, The Milwaukee Road will add new members to its HIAWATHA fleet and re-equip existing trains. More new passenger train cars will be placed in service than on any other western railroad. V. L. Hitzfeld, General Agent Passenger Dept., 100 West Monroe Street, Chicago 3, Ill. Phone Central 7600.





Steel Demand Tops Output Peak

STEEL production in 1947 was the greatest ever recorded in peacetime and played a most important part in sustaining the country's high industrial activity. National ingot output of almost 85,000,000 tons was over 18,000,000 tons better than 1946 and less than 5,000,000 tons below the wartime peak of 1944, yet the tonnage fell far short of meeting consumption requirements.

Despite the fact that numerous records were established for shipments of specific steel products, there was little semblance of balance between supply and demand. Critical shortages of some products persisted throughout the year and continue today, still without sign of being alleviated in the foreseeable future.

No Crippling Strikes

The year 1947 was free from the crippling strikes in steel and coal which in 1946 cost some 15,000,000 ingot tons, but production was held down to some degree by shortages of metallics, principally scrap; scarcity of high-grade coal; and the necessity for repairing facilities worn out from long hard service.

Producing capacity is somewhat larger than a year ago, and the outlook for 1948

would be brighter were it not for the fact that the same handicaps which hindered last year probably will exert an even stronger influence this year.

The Chicago district continues as a major steel producing center, providing about one-fifth of the total made in the United States. However, because of conditions which confronted it in 1947, the district fell short in its accustomed role of making steel at a rate exceeding the national average. For a period of seven years or more, Chicago had been a consistent leader in this respect.

Production of steel ingots in the Chicago district in 1947 aggregated 16,461,821 net tons. This was 2,821,821 tons, or 20.6 per cent, more than the 13,640,000 tons made in 1946, and only 1,628,179 tons, or 8.9 per cent, less than the all-time peak of 18,090,000 tons in 1944. The 1947 output was almost identical with the 16,464,000 tons in 1945, and compares with 17,882,000 tons in 1943 and 17,665,000 tons in 1942.

As stated previously, the Chicago district for a period of seven years or more had carried better than its proportionate share of the nation's production. In 1946, the margin was narrowed and in 1947 it

was reversed. Average weekly ingot production rate for the district last year was 92.6 per cent, while for the United States it was 93.6 per cent. Corresponding figures for preceding years were 74.0 and 72.3, respectively, in 1946; 91.1 and 86.3 per cent in 1945; 100.0 and 97.1 per cent in 1944; 99.5 and 98.5 per cent in 1943; 102.8 and 98.1 per cent in 1942; and 100.4 and 96.8 per cent in 1941. This index is calculated by STEEL Magazine at the beginning of each week as the ratio of scheduled production to rated capacity.

Chicago's Production Rate

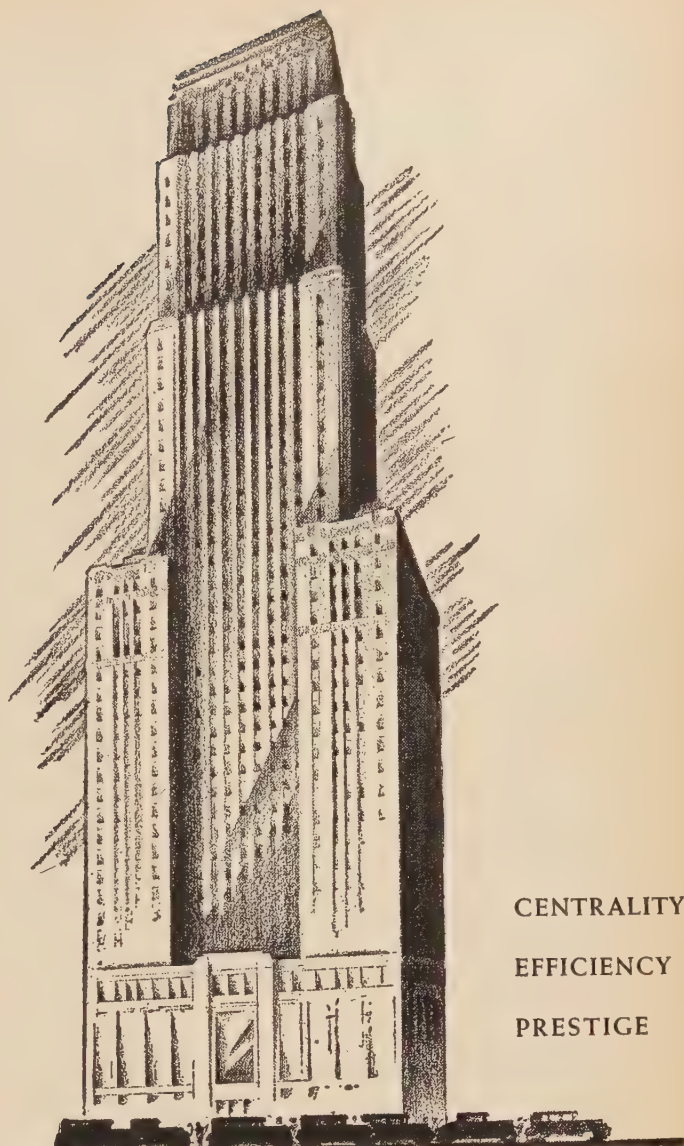
Highest Chicago production rate in 1947 was 96 per cent in the weeks ended March 22, April 19, April 26 and June 7; the highest for the United States was 97.5 per cent in the three consecutive weeks of December 6, 13 and 20. Lowest in Chicago was 77 per cent in the week ended May 10 during a strike in the plant of Inland Steel Company. Lowest in the United States was 73 per cent in the week ended July 5, this being the period that coal miners took a 10-day vacation.

A tabulation of weekly operating rates

BEFORE YOU DECIDE
ON YOUR NEXT MOVE

*Investigate the advantages
of an office in the distinguished*

ONE
LA SALLE
STREET
Building



CENTRALITY
EFFICIENCY
PRESTIGE

An office in the One La Salle Street Building places you strategically in the very heart of Chicago's financial, legal, commercial, and insurance activities—at an address of commanding prestige.

The building itself is one of the most distinguished office-structures in the country. Its fifty stories represent a triumph of architectural design, utility, and efficiency, and embody features and facilities not often found in a building of its type.

Naturally, the service is in keeping both with the distinction of the building and the uniformly high character of its occupancy. It is alert, courteous, efficient, and vigilantly maintained.

The physical structure of the building permits an unusual degree of flexibility in arranging floor plans to meet specific needs. Whether your space requirements are large or small, our layout department will assist you to obtain maximum usage from every square foot.

L.J. SHERIDAN & CO., Agents

*One La Salle Street Building
Telephone RANdolph 7747*



BETTER PRESSES . . .

AND THE EXPERIENCE AND SERVICE BEHIND THEM

THE steady growth of the Verson organization before, during and in this period after the war is due to a constant policy of striving for improvement. The result is evident in the Verson products now in manufacture and on the boards. New designs featuring unusual engineering—based on broader experience—will help Verson customers turn out better products, faster at less cost.

Your requirements for improved equipment and service to meet the production problems ahead are very important to you. They are to us too.

You will find ready cooperation in the Verson organization—use it to help you plan for the future.

VERSON ALLSTEEL PRESS COMPANY

1355 East 93rd Street • Chicago 19, Illinois

POWER PRESSES • HYDRAULIC PRESSES • CLUTCHES
FORGING PRESSES • PRESS BRAKES • DIE CUSHIONS

**In Lead Position and Equipped
to Lead**

**Caspers
Tin Plate Company**

**Tin Plate and Black Plate
Plain or Decorated**

4100 West 42nd Place

CHICAGO 32

Telephone: LAFayette 0163

for the Chicago district and the United States during 1947 follows:

STEEL INGOT PRODUCTION—1947 Per Cent of Rated Capacity

Week Ended	Chi- cago	U.S.	Week Ended	Chi- cago	U.S.
Jan. 4	88.5	88.0	July 5	89.5	73.0
Jan. 11	89.5	90.0	July 12	92.0	86.0
Jan. 18	90.0	91.0	July 19	90.0	92.5
Jan. 25	90.0	91.5	July 26	94.0	95.0
Feb. 1	90.0	92.5	Aug. 2	94.5	95.0
Feb. 8	91.0	92.0	Aug. 9	94.0	95.0
Feb. 15	92.0	93.5	Aug. 16	93.5	94.0
Feb. 22	92.0	94.5	Aug. 23	90.5	93.0
Mar. 1	92.0	92.5	Aug. 30	90.5	93.0
Mar. 8	93.0	93.0	Sept. 6	90.5	93.0
Mar. 15	95.5	95.0	Sept. 13	93.5	82.0
Mar. 22	96.0	96.5	Sept. 20	92.5	87.5
Mar. 29	94.5	97.0	Sept. 27	94.0	94.0
April 5	95.0	97.0	Oct. 4	94.5	94.5
April 12	95.5	96.5	Oct. 11	95.0	95.5
April 19	96.0	95.5	Oct. 18	95.0	96.0
April 26	96.0	95.5	Oct. 25	95.0	95.5
May 3	84.0	94.0	Nov. 1	94.5	96.5
May 10	77.0	92.0	Nov. 8	94.5	96.0
May 17	89.0	94.5	Nov. 15	95.0	97.0
May 24	94.5	96.5	Nov. 22	94.5	96.5
May 31	95.5	95.5	Nov. 29	95.0	96.5
June 7	96.0	96.5	Dec. 6	95.0	97.5
June 14	95.0	96.5	Dec. 13	95.5	97.5
June 21	95.5	96.5	Dec. 20	94.0	97.5
June 28	95.5	96.5	Dec. 27	79.5	86.0

Year's Average 92.6 93.6

Source: STEEL Magazine.

Far more steel was made in the United States in 1947 than in any previous peacetime year. According to the American Iron and Steel Institute, the total output of steel ingots was 84,787,501 net tons and an increase of 18,423,653 tons, or almost 28 per cent better than the 1946 production of 66,363,848 tons. The 1947 production was less than 5,000,000 tons below the wartime peak of 89,641,600 tons in 1944.

To produce this record tonnage, steel furnaces were operated at an average rate of 92.9 per cent of capacity. Thus, 1947 was the first peacetime year in which average operations exceeded the 90 per cent level. The output of the year was only about 6,500,000 tons below the industry's rated capacity figure of 91,241,250 tons.

The Chicago district's steel production of 16,461,821 tons in 1947 represented 19.4 per cent of the United States total. This performance is in reasonably close agreement with capacity figures. As of January 1, 1947, the Chicago district possessed 18,431,800 tons, or 20.2 per cent, of the country's total. Based on these beginning-of-the-year capacity figures, the Chicago district produced steel at only 89.3 per cent of capacity, as compared with 92.9 per cent for the country as a whole.

In no previous recent year had the Chicago district failed to surpass the national rate by from one to almost five points. The explanation appears to be two-fold. Most important is that production derived from almost 3,000,000 tons of new capacity built in the United States during 1947 was weighed against the January 1 capacity. The Chicago district, with no expansion of capacity, was denied corresponding advantage. Con-

tributing also to the reversed showing of the Chicago district last year was the fact that one major steelmaker suffered a strike in the Spring which cost about one month's output of steel, thereby pulling down the district's production for the year by about 1.7 points.

The Chicago district's steelmaking capacity of 18,431,800 net tons as of January 1, 1947, was made up of 16,634,200 tons of open hearth, 830,000 tons of bessemer and 967,600 tons of electric steel. The total was 125,000 tons lower than January 1, 1946, and consisted principally of further reclassification by Republic Steel Corporation of open-hearth and electric furnace capacity at the South Chicago plant purchased from the government in late 1946. Initial reclassification was made in 1945. This plant was built to produce electric furnace alloy steel exclusively, but since the war Republic has converted it largely to open-hearth production.

As the Chicago district's capacity dropped 125,000 tons, or 0.67 per cent, between January 1, 1946, and January 1, 1947, national capacity declined 649,310 tons, or 0.71 per cent. The decrease represented obsolete facilities held in service during the war but subsequently abandoned as worn out or unsuitable for peacetime operation. Chicago's relative stature as a steelmaking center thus was little changed during the year.

Steel Capacity Up

According to the American Iron and Steel Institute, 2,992,210 tons of new ingot capacity were added to national capacity last year to make the total 94,233,460 tons as of January 1, 1948. None of this new capacity was in the Chicago district, and insofar as is known none is being projected for the immediate future. Thus, as of the present moment, Chicago has only 19.6 per cent of national capacity, compared with the 20.2 per cent in both 1947 and 1946.

The national capacity of 94,233,460 tons at the beginning of 1948 compares with the all-time peak of 95,501,390 tons in 1945. According to the institute, gross increases of 828,500 tons in 1948 and 1,174,000 tons in 1949 are expected. There is prospect, therefore, that within two years national annual capacity will exceed 96,000,000 tons.

Included in the current Chicago district capacity figure is 120,000 tons of idle electric furnace capacity at East Chicago, Ind., owned by the Reconstruction Finance Corporation. This facility, built by the government during the war at a cost of \$1,795,000 and operated by Youngstown Sheet and Tube Company to produce high alloy steel, was declared surplus and offered for sale in May, 1947. The Youngstown company was sole bidder, but its offer of \$510,000 was rejected and nothing further has been done toward disposal of the property.



FINE PRINTING *for You*

QUALITY is becoming more and more a part of the daily pattern in our personal and business lives. Manufacturers and merchandisers are putting better material, better design, and better work into the products they offer an increasingly quality-conscious public. It is not inconsistent, therefore, that buyers of printing are becoming more and more aware of the extra power and effectiveness quality craftsmanship gives to their printed pieces. And they have come to know that quality printing brings better, surer results. Hundreds of such buyers come to The Lakeside Press, where fine craftsmen, skilled in the graphic arts, take deep pride and pleasure in producing quality work. Why not get in touch with us about your next printing job? Consulting with us involves neither cost nor obligation.



The Lakeside Press

R. R. Donnelley & Sons Company

350 East Twenty-second Street, Chicago 16

FOR TOUGH JOBS

GATKE

ASBESTOS
BRAKE LINING
CLUTCH FACINGS
AND FRICTIONS

Developing Better and Better Materials to lick tough jobs has kept GATKE out in front. Extensive experience with every kind of equipment has taught us the problems and service needs of operators.



Whatever your service, just tell us what you need.



ASBESTOS PRODUCTS

FRICTIONS - BRAKE LININGS

CLUTCH FACINGS - FABRIC BEARINGS

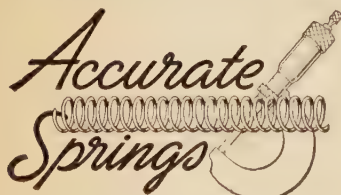
GATKE CORPORATION, 242 N. La Salle St., Chicago

Call Accurate for

Precision Springs

Compression
Extension
Torsion
Flat
All Types
All Materials

VANburen 5900



ACCURATE SPRING MFG. CO.

3811 W. Lake Street, Chicago 24, Ill.

SPRINGS • WIREFORMS • STAMPINGS

PIG IRON PRODUCTION (Net Tons)

	1947		1946	
	Chicago	U. S.	Chicago	U. S.
January.....	1,051,846	5,087,186	588,639	2,644,552
February.....	959,548	4,549,628	280,144	1,147,564
March.....	1,085,738	5,122,857	901,243	4,423,916
April.....	1,036,706	4,829,717	720,964	3,613,560
May.....	1,003,698	5,081,131	523,099	2,290,601
June.....	1,045,894	4,809,809	795,022	3,686,628
July.....	1,033,846	4,590,089	1,010,336	4,705,277
August.....	1,070,630	4,916,557	1,056,715	4,895,295
September.....	1,068,885	4,800,620	986,974	4,687,390
October.....	1,105,074	5,227,747	1,007,136	4,814,561
November.....	1,048,987	5,017,252	947,324	4,477,021
December.....	1,057,792	5,177,137	899,597	3,992,165
Total.....	12,568,644	59,209,730	9,717,193	45,378,530

Source: American Iron and Steel Institute.

Steelmaking operations in the Chicago district, as well as in the United States, last year might have been nearer capacity had steel scrap and hot metal from blast furnaces been in better supply. Scrap was short during most of the year, requiring the use of more than normal proportions of hot metal, which lengthened the refining time per heat of steel. Moreover, sufficient hot metal was not always available to offset the lack of scrap. Steelmaking furnaces having been pushed for long periods during and since the war needed to be rehabilitated, causing lost production through down time. Some production also was lost through strikes and the coal miner's 10-day vacation in midyear, but this factor was far less important than it was in 1946.

As for 1948 prospects, scrap probably will be as short as last year and until midyear the supply of hot metal will undergo little improvement. Iron ore likely will be adequate, but there is serious doubt about coal, particularly coal of the high grade required for cokemaking. These factors alone, raise doubt as to whether steel capacity can be operated to the full potential in 1948. The matter of strikes is a question which cannot be forecast—there is always the threat of a coal mining tie-up and recently the first hints of one have been given.

Confirmation of the foregoing viewpoint came recently from Walter S. Tower, president, American Iron and Steel Institute, who stated that obtaining sufficient quantities of raw materials to operate the steel industry's enlarged capacity is a problem still to be solved.

"Without increased quantities of raw materials, the recent and prospective expansion of capacity will be valueless as regards increased output of steel," Mr. Tower said. If the industry were called upon to produce the limit of 96,000,000 tons of capacity to be available in 1949, it "would need about 115,000,000 tons of iron ore, more than 100,000,000 tons of coal, a minimum of 20,000,000 tons of market scrap, and huge quantities of fuel oil, natural gas and electrical energy. The industry has not had such supplies available in any year."

The amount of steel in use per capita in the United States now is between

12,000 and 15,000 pounds, three or four times the amount in use at the beginning of the century.

Pig iron and ferroalloy production in the United States and in the Chicago district in 1947 increased markedly. Monthly output statistics for the two years are shown in an accompanying table.

The 12,568,644 net tons made by Chicago district blast furnaces last year was 2,851,451 tons, or 29.3 per cent, above the 1946 figure of 9,717,193 tons. Total production for the country in 1947 of 59,209,730 tons was 13,831,200 tons, or 30.5 per cent, more than the 45,378,530 ton output of the previous year. Neither established new records—Chicago's peak was 13,206,388 tons in 1943 and the nation's was 61,939,474 tons in 1944.

According to the American Iron and Steel Institute, United States production of pig iron and ferroalloys last year was 90.1 per cent of capacity, while Chicago was at only 89.2 per cent. Chicago district blast furnace capacity of 14,097,710 tons as of January 1, 1947, represented 21.4 per cent of national capacity of 65,709,200 tons.

Blast Furnace Capacity Up

The American Iron and Steel Institute reports that as of January 1, 1948, United States blast furnace capacity stood at 67,438,930 tons, an increase of 1,729,730 tons over 1947. Expected gross increase for 1948 is 2,924,000 tons and 476,000 tons for 1949. Because the institute's "Chicago district" designation embraces a larger area than the immediate Chicago area, and because it will be six months before the institute will make detailed capacity figures available, it is not possible to indicate accurately how much of the increased national capacity accrues to the Chicago district. Information now available, however, shows that this area is benefiting appreciably by blast furnace expansion.

As of January 1, 1947, the immediate Chicago district had 40 blast furnaces with an annual capacity of 13,079,410 tons. This was increased by 427,000 tons on August 2, 1947, when Inland Steel Company lighted for the first time the second of two large stacks at Indiana

Harbor purchased from the government in 1946. This furnace, uncompleted at time of purchase, was finished and brought into service. On August 22, Carnegie-Illinois Steel Corporation re-lighted its No. 6 furnace at Gary, which had been rebuilt to increase capacity from 300,100 tons to 520,000 tons annually. These developments gave the district 41 blast furnaces and increased capacity by 646,900 tons to a total of 13,726,310 tons per year.

Scheduled to be completed and go into operation soon after March 15, this year, are two new blast furnaces at South Works of Carnegie-Illinois Steel Corporation, each with an annual capacity of 520,000 tons. During the coming Summer, Youngstown Sheet and Tube Company plans to replace its No. 1 blast furnace at Indiana Harbor with a unit which will increase iron output by 188,000 tons. An interesting feature of this operation is that the new furnace will be built near the old one, then moved to the foundation pad. This will minimize loss of iron production.

Motivated by the continuing shortage of iron, Inland Steel Company has deferred its previously announced intention of abandoning its No. 3 blast furnace at Indiana Harbor. This stack, an old and small one, has an annual capacity of 266,000 tons.

Chicago Gains 37% Of Increase

These figures indicate that of the institute's reported blast furnace capacity increase of 5,129,730 tons in the three-year period, 1947-1949, approximately 1,874,900 tons, or almost 37 per cent, can be credited to the Chicago district.

At times during 1947, Chicago blast furnaces produced iron at an all-time high rate. This was possible because capacity was greater than ever before and all units were in operation. That a new annual output record was not achieved was due to the fact that in the fourth quarter it was necessary to blow out several stacks for relining and repairs following long usage.

During the early part of 1947, the steel industry was bitterly criticized by congressional committees, steel consumers and labor unions for short-sightedness in not expanding steelmaking capacity to match current demand. The charges came chiefly from investigations into "gray market" steel activities. Spokesmen for the industry replied that facilities for making sheets and strip were being enlarged appreciably although more slowly than planned.

The expansion program now underway involves expenditures totaling \$448,000,000. Much of the work undertaken many months ago has been delayed by strikes and other handicaps in the equipment industries. When the government and others were urging wide-spread ex-

HABER—Chicago MASTER MACHINE SHOP AND SCREW MACHINE FACILITIES

Turret Lathes
•
Milling Machines
•
Drill Presses
•
Tappers
•
Grinders
Centerless
Cylindrical

DESIGNERS
•
ENGINEERS
•
MANUFACTURERS

Automatic Screw
Machines
Single and Multiple
Spindle
•
Capacities
1/16" to 2 1/4"
•
HAND SCREW
MACHINE WORK

HABER COMPANY

864 W. North Avenue

Chicago 22, Illinois



ALDENS CATALOG IS BIG BUSINESS FOR AMERICA...

...BRINGS BUSINESS
TO RAILROADS,
MANUFACTURERS,
PAPER MILLS,
AND PRINTERS

For 59 years Aldens catalogs have served American women throughout the nation... and in 1947 brought business to the nation's railroads, manufacturers, printers, and paper mills. The leading catalog company specializing in fashions for women since 1889, Aldens now serves 5,000,000 customers. Aldens catalogs of today—with all the things women buy for themselves, their families and their homes—bring business to American industries and a modern department store right into the comfort of American homes everywhere.

Aldens

The Chicago Mail Order Company Since 1889

General Offices: 511 S. Paulina Street, Chicago • Buying Offices: 200 Madison Ave., New York

MERCIL PLATING

**Looks Right
Stays Right
Is Right**

**We've been doing
good plating for
seventy two years.
We know how.**

**BRIGHT • NICKEL
BRASS, COPPER
CADMIUM
ELECTRO • ZINC
ELECTRO TIN
AND
BURNISHING
ELECTRO LEAD**

*"We Do It
Mechanically"*

**B. MERCIL AND SONS
PLATING COMPANY**
1901-1919 W. Fulton Street, Chicago, 12
Telephone Seeley 0102

pansion, the industry pointed out that such expansion would require large tonnages of steel for construction and would further reduce supplies available for consumers. It was also shown that added construction would take one or two years to accomplish. Subsequently, in January, 1948, Secretary of Commerce Harriman proposed that industry, including steel, postpone all but the most urgent new construction and expansion projects to save scarce materials.

The greatest shortage of steel is in flat-rolled products, namely, sheets and strip. In recognition of this, some 3,000,000 tons of new rolling capacity was scheduled for completion by mid-1947. Some has been completed, but the bulk will come into service this year.

To Cost \$448,000,000

A good share of new capacity for finished rolled steel products, particularly flat-rolled, is in the Chicago district. Some of the more important projects follow:

Carnegie-Illinois Steel Corporation: Modernized some rolling mills at its Sheet and Tin Mill, Gary, Ind., in 1947. Increase in cold-rolled strip and tin plate production at same plant due for completion in fourth quarter, 1948.

National Tube Company: Additional tube-making facilities at Gary, Ind., works due for completion in first quarter, 1949.

American Steel and Wire Company: New stainless steel wire mill at Waukegan, Ill., works due for completion in second quarter, 1948.

Inland Steel Company: Increased capacity for cold-rolled sheets at Indiana Harbor, Ind., in 1947 through improved practices and installation of some materials handling equipment. Constructing additional cold-rolled sheet capacity for completion in late 1948 or early 1949.

Acme Steel Company: Increased capacity for galvanized strip at Riverdale, Ill., plant in 1947. Increased capacity for cold-rolled strip due for completion in second quarter, 1948.

Borg-Warner Corporation, Ingersoll Steel Division: Increased capacity for hot-rolled sheets at Chicago plant due for completion in first quarter, 1948.

Continental Steel Corporation: Increased capacity for hot-rolled sheets and galvanized sheets at Kokomo, Ind., due for completion by end of 1948.

Republic Steel Corporation: Improved operating efficiency of barmaking facilities at South Chicago, Ill., by transfer of a billet mill from old plant to its new plant during 1947. Plans at some future time to install another rod or bar mill in new plant.

Youngstown Sheet and Tube Company: Plans to increase ingot capacity at Indiana Harbor, Ind., works at some future time, this to provide steelmaking capacity to match present finishing capacity.



Thirty-Five Years of Shipping Progress

Experience is the best teacher . . . in shipping as in any other field of human endeavor. Through thirty-five years of steady progress, Moore-McCormack Lines have mastered the specialized skills which assure efficient operation . . . Today, our big, fast, modern ships—both cargo and passenger—carry the American flag on trade routes of key importance: between the Atlantic and Pacific coasts of the United States, and in South America, Scandinavia and continental Europe.

Within the last year, Mooremack ships set four new speed records in reaching foreign ports, impressive evidence not only of the efficiency of our vessels, but also of the ability of ship's personnel and of the management directing operations. The shipper who entrusts his cargo to Mooremack . . . the passenger who voyages abroad in Mooremack comfort . . . both benefit by all that this organization has learned in thirty-five years of growth.

MOORE-McCORMACK
Lines
 5 Broadway New York 4, N. Y.

From Pearl Harbor to V-J Day, Moore-McCormack Lines operated more than 150 ships, lost 11 vessels, transported 754,239 troops and carried 34,410,111 tons of war cargo. To discharge such responsibilities in time of crisis, America's Merchant Marine must be kept strong in peace—as in war.

•
•
Gummed Tape

Napkins

Towels

Toilet Tissue

Twine

•
•
**Printed Specialty
Wrapping Papers**

•
•
•
•
**BROWER
PAPER CO.**

INC.

HAYmarket 6242
329 N. Racine Ave.
CHICAGO 7

Transportation Still Hurt by Shortages

FURTHER readjustments to postwar conditions during the year 1947 created many problems for both the carriers and the shipping public. Although labor disturbances were few during the year, in comparison with 1946, other transition difficulties remained. Transportation agencies were confronted with another round of wage increases and these, together with increases in the costs of materials and supplies, necessitated further increases in freight rates and passenger fares. Shortages of freight equipment, coupled with an increased volume of traffic caused considerable concern, not only on the part of the shippers and carriers, but in the legislative and executive branches of the government as well.

Railroad carloadings were greater in 1947 than in any year since 1930, including the war years 1941 to 1945. At the same time the railroads owned 19,626 less freight cars at the close of 1947 than they did a year earlier. The fact that a very serious transportation breakdown was avoided is attributed to increased railroad operating efficiency and shipper cooperation.

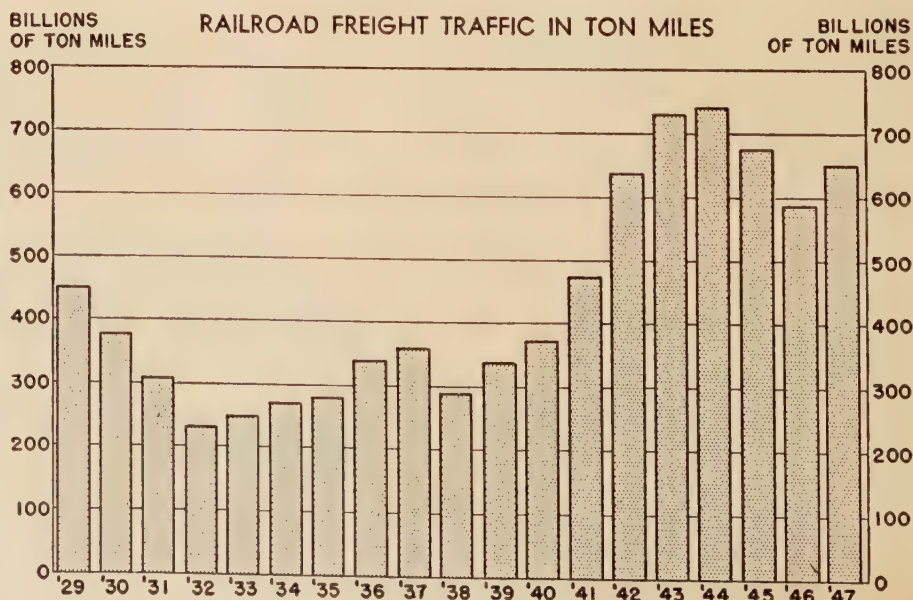
The volume of traffic handled by truckers also continued heavy and while availability of new equipment to replace war worn trucks improved materially during the year, the sharp increases in the

price of the equipment made a new problem for many carriers.

What lies ahead in 1948 depends to a large extent on the economic conditions which will prevail. Price levels are continuing to rise, employment is high and consumer buying is at an unprecedented rate. Indications are that freight traffic during 1948 will approximate that of 1947, although a further decline in passenger traffic is expected. It is predicted that the production of freight carrying equipment will be stepped-up, but shortages, particularly in box cars, will continue. This means that there can be no relaxation in the shipper-carrier cooperation which has prevailed during and since the war. The turn-around time of freight equipment will have to be kept at a minimum through expedited handling of cars by the carriers and prompt loading and unloading by shippers and receivers of freight.

RAILROADS

WITH operating costs spiraling, the railroads found the increases in freight rates authorized in Ex Parte 162 insufficient, and in July petitioned the Interstate Commerce Commission for a further increase in freight rates and charges. This petition sought a 25 per cent increase on commodities generally

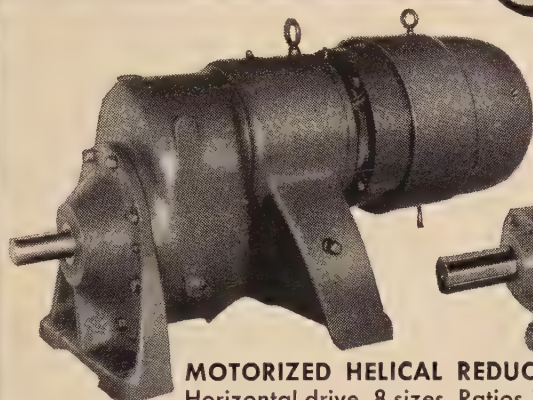


Established 1888

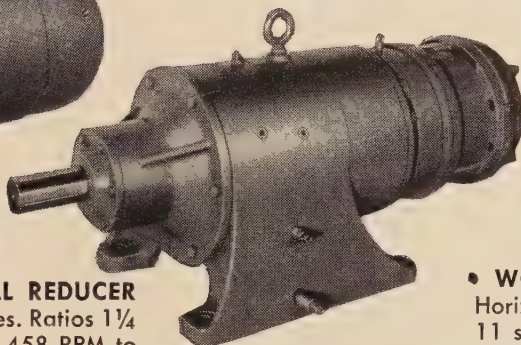
D.O. James

MOTORIZED

SPEED REDUCERS



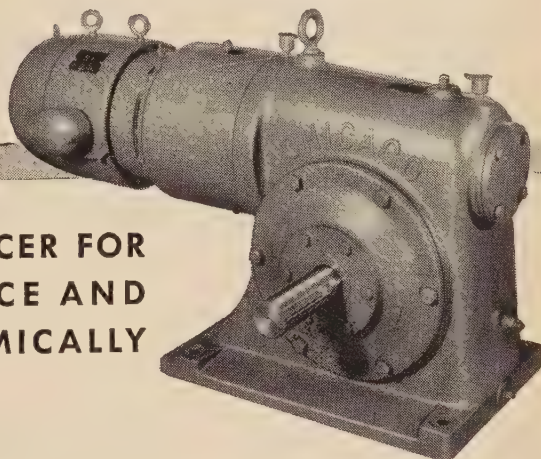
MOTORIZED HELICAL REDUCER
Horizontal drive. 8 sizes. Ratios $1\frac{1}{4}$ to 9:1. $\frac{3}{4}$ to 50 HP. 1458 RPM to 128 RPM.



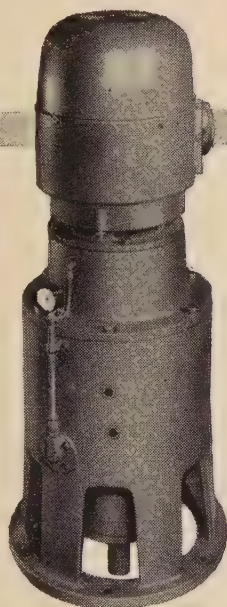
MOTORIZED PLANETARY REDUCER
Horizontal drive. 35 sizes. Ratios 10 to 1200:1. $\frac{3}{4}$ to 75 HP. 172 RPM to 74 RPM.

MOTORIZED PLANETARY REDUCER
Vertical drive. 35 sizes. Ratios 10 to 1200:1. $\frac{3}{4}$ to 75 H.P.
← 172 RPM to 74 RPM.

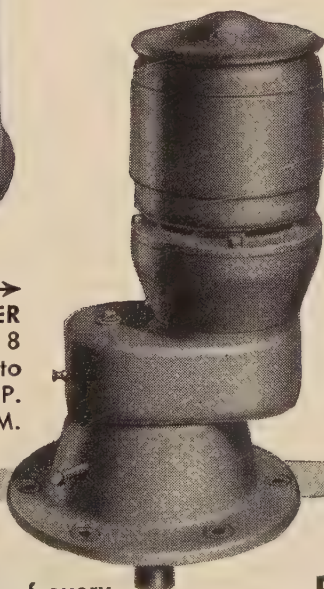
MOTORIZED WORM GEAR REDUCER
Horizontal and vertical drive. 11 sizes. Ratios 6 to 65:1. $\frac{1}{8}$ to 30 HP. 310 RPM to 25 RPM.



THE IDEAL GEAR REDUCER FOR
LIMITED FLOOR SPACE AND
IS OPERATED ECONOMICALLY



MOTORIZED HELICAL REDUCER
Vertical drive. 8 sizes. Ratios $1\frac{1}{4}$ to 9:1. $\frac{3}{4}$ to 50 HP. 1458 to 128 RPM.



The design and manufacture of D.O. James motorized reducers embodies all the high quality of construction of our standard gear reducers. In addition to this in-built quality you have many advantages—such as compactness, lower cost and elimination of separate supports, thereby saving valuable floor space. D.O. James Motorized Reducers are manufactured to drive up, down, horizontally or at an angle. Send for new Motorized Reducer Catalog and Price List.

D.O. James

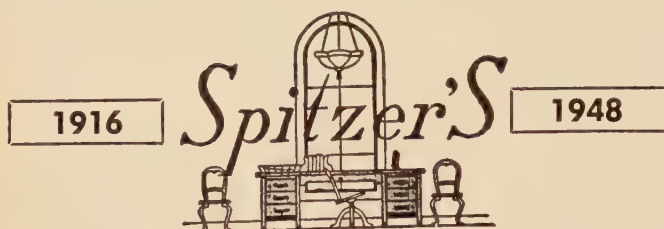
Over 60 years makers of every
type of gear and gear reducer

D.O. JAMES GEAR MANUFACTURING CO.
1140 W. MONROE STREET, CHICAGO, ILL.

IN OFFICE FURNISHINGS

One Name Stands Out Eminently

THAT NAME IS



OFFICE FURNITURE HOUSE, INC.
Wood—Steel

"The Finest in Executive Furniture"—Always at the Right Price
For Your Convenience in Selections We Have Ten Completely
Furnished Display Rooms.



We Also Offer a Wide Selection of—Davenport and Club Chairs in a Variety of Styles and Patterns to Suit Your Individual Requirements.

Also in Stock—Modern and Period Desks with Matching Tables, Chairs, etc.

Commercial Desks, Tables and Chairs of all descriptions in Wood or Steel.

—STEEL FILES—

160 W. LAKE ST.

CHICAGO 1, ILL.

ALL PHONES—CENTRAL 3609

A. A. WICKLAND & CO.

Foundry Engineers

Continuously Since 1919

Designers of modern foundries and manufacturing plants.
Complete engineering service.

Clients of national prominence will attest to our ability.

ENGINEERING BUILDING • CHICAGO 6

Telephone **ANDover 5922**

moving from, to and within Eastern territory and a 15 per cent increase within and between Southern and Western territory. In September a supplemental petition was filed boosting the increases sought in the original petition by 13 percentage points on commodities generally. This supplemental request was based principally on a 15½ cent hourly wage increase awarded 17 non-operating railway labor groups which would cost the railroads an estimated \$467,400,000 annually.

Interim Increase Allowed

At the time the supplemental petition was filed, the carriers asked and were granted permission to increase freight rates by 10 per cent for application during the pendency of the full request proceedings, assigned as Ex Parte 166. A 10 per cent interim increase was allowed effective October 13. In December a second supplemental rate increase petition was filed by the carriers boosting their prior request by three percentage points. This action was based on another 15½ cent hourly wage increase granted two operating brotherhoods costing the railroads an estimated \$96,350,000 annually, and an expected similar hourly wage boost for the other three operating brotherhoods which would approximate \$68,350,000 yearly. Thus the full rate increase requested rose to 41 per cent on traffic within and between Eastern territory and 31 per cent on traffic within and between Southern and Western territory. Shortly after the filing of this second supplemental petition the Interstate Commerce Commission authorized an interim 20 per cent increase in freight rates instead of the previously authorized 10 per cent increase. This increase, which is to remain in effect to June 30, 1948, will provide the carriers some financial assistance during the period that the commission is weighing the evidence presented on the full request of the carriers.

The Supreme Court on May 12, 1947, sustained the interim order of the Interstate Commerce Commission in Docket No. 28300 and ordered the injunction against enforcement of the order, which had been issued by a New York District Court, dissolved. The commission then issued a supplemental report in the proceedings in which they ordered the railroads to increase their rates on traffic moving under classification ratings by 10 per cent in official territory and to reduce the class rates in Southern and Western territory in the same amount. This adjustment was made in the class rates in effect in May, 1945 and to the result was added a 22½ per cent increase instead of the increases previously granted in Ex Parte 162. This adjustment in class rates became effective August 22, 1947.

Eastern railroads, alleging that less-than-carload traffic was not paying its

own way, due principally to increased terminal expenses, petitioned the Interstate Commerce Commission for authority to establish a separate scale of rates for application on this traffic. Their proposal contemplated increasing present less-carload rates from 10 per cent on long-haul traffic up to as high as 110 per cent on short-haul movements. The petition was docketed as No. 29770, Increased Less-Than-Carload Rates, Official Territory. Hearings in the proceeding have been held, but no order has as yet been handed down by the Interstate Commerce Commission. The Eastern railroads, including the Illinois and Wisconsin Zone C carriers, were successful, however, in having less-than-carload ratings of lower than fourth class increased to fourth class. This increase became effective January 31, 1948.

Revenue ton miles of freight transported during 1947 by the nation's railroads totalled 647,359,000,000 miles, setting a peacetime record topped only by the peak war year, 1944. It represents an increase of 9.4 per cent over 1946, 44.7 per cent over 1929, the second peak year prior to World War II, and 94.1 per cent above 1939. Revenue carloadings during 1947 were 44,503,349 cars, surpassing any year since 1930, including the war years. It also represents an increase of over 3,000,000 cars or 7.7 per cent over 1946.

Increasing Car Shortage

Due to the rapidly diminishing supply of freight equipment, this unprecedented volume of traffic was handled by the carriers under extreme difficulties. Maximum loading orders, which had been issued by the Office of Defense Transportation, continued in effect and numerous orders and embargoes were issued by the Interstate Commerce Commission and the Association of American Railroads to assure maximum use of existing freight facilities. The average turn-around time of freight cars was reduced to a record low by the improved handling of cars by the railroads and the prompt loading and unloading of cars by shippers and receivers of freight.

With the continued equipment and manpower shortages together with freight house congestion, there was no appreciable improvement in the handling of less-than-carload freight. Records compiled by The Chicago Association of Commerce and Industry indicate that 54.7 per cent of the 282,269 package cars reported leaving Chicago during 1947 were placed for unloading at destination on schedule. During 1946, 54.6 per cent of the 320,746 cars reported from Chicago were placed at destination on schedule. Loadings of less-than-carload freight decreased under 1946 largely because of the fact that increased production made possible the purchase of larger quantities.

The accompanying table shows the number of package cars forwarded from

Chicago by months during 1946 and 1947:

L.C.L. PACKAGE CARS FORWARDED FROM CHICAGO

	1947	1946
January.....	30,393	32,466
February.....	27,216	30,389
March.....	32,089	33,857
April.....	32,150	35,753
May.....	30,994	31,590
June.....	29,391	33,307
July.....	28,973	32,990
August.....	30,104	33,400
September.....	30,691	30,353
October.....	31,913	35,782
November.....	29,587	34,582
December.....	30,122	31,424
Total.....	363,623	395,893

MOTOR CARRIERS

THE motor carriers like the railroads were confronted with continued increases in operating expenses during 1947. Labor contracts not only increased the hourly wages but reduced the work week, thereby increasing overtime pay. In addition to wage increases there were also sharp rises in the price of equipment, fuel, insurance and repairs, necessitating increases in transportation rates. These rate rises were in most instances in the same percentage as was granted rail carriers by the Interstate Commerce Commission. The volume of traffic handled by the motor carriers was high and this, together with the rate increases which they received, gave most of them more favorable operating ratios. This should provide sufficient revenue to enable them to replace their obsolete and worn out equipment.

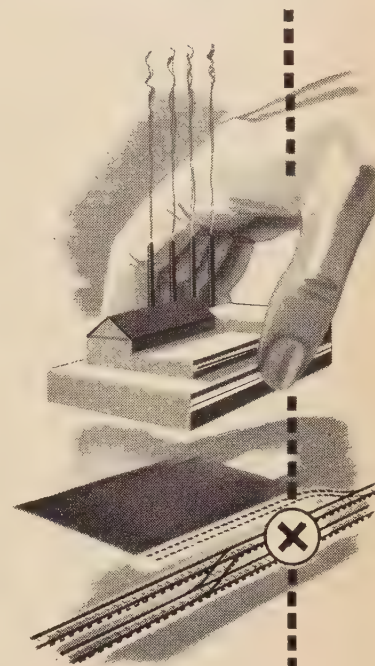
Services performed by the motor carriers were for the most part satisfactory and there were few complaints from shippers. Although there were no general truck strikes, such as occurred in 1946, when there was a tie-up of all truck operations west of the Mississippi River, there were local strikes at key points, such as Louisville, Pittsburgh and Boston which tended to disrupt some operations.

AVIATION

CHICAGO'S mounting importance as a national and international air terminal was underscored again in 1947 as both passenger and air freight traffic, fanning out to all parts of the world, reached new peacetime records. At the city's Municipal Airport last year, a total of 2,537,412 air passengers were cleared to establish a new high level, two per cent above 1946 and almost double the volume of 1945. Of the 1947 total, there were 1,291,461 arrivals and 1,245,951 departures.

Air express shipments handled in the city rose even more sharply. The 1947 total was 625,101, up 18 per cent from the 1946 total of 528,339 shipments. The year also witnessed an abrupt rise in air-

THE LOCATION OF YOUR PLANT



MAY WELL DETERMINE YOUR PROFITS!

By selecting plant sites with *profit advantages*, you get a head-start over competition. The Wabash Industrial Department helps you choose wisely, by furnishing you with pertinent data about hundreds of available sites...*centrally located sites with a strong profit potential.*

Low-cost power and fuel... abundant raw materials... a dependable supply of labor... and the efficient freight and passenger service of the Wabash... *these are the factors which may well determine your profits.* Before you buy, get the facts from Wabash. No obligation, of course. Just phone or write:

H. H. McINTYRE

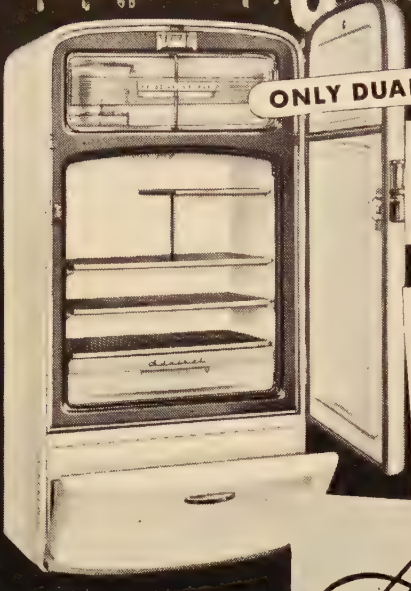
General Industrial Agent, Wabash Railroad Co.
Room D-14 Railway Exchange Building
St. Louis 1, Missouri



Serving the Heart of America

WABASH RAILROAD

No defrosting!



ONLY DUAL-TEMP GIVES YOU ALL 4!

- 1** **Dual-Temp Home Freezer** quick freezes at 15° below zero. Stores up to 70 lbs. safely for months.
- 2** **Dual-Temp Moist Cold Compartment** never requires defrosting. Keeps food fresh and moist without covering dishes.
- 3** **Dual-Temp Sterilamp** kills germs ... helps preserve food longer.

Admiral

- 4** **Dual-Temp Moistrol** ... the drip tray that automatically empties itself! Many more features ... See Dual-Temp, today!

DUAL-TEMP REFRIGERATORS

Proved Performance in
over 200,000 kitchens.

Now ... NON-STOP to MIAMI

with Delta DC-4 Comfort
NO EXTRA FARES



Leave Chicago at 12:15 p.m., lunch in flight and be in Miami for dinner.

Cruise South to summer in the comfort of Delta's DC-4's, the only planes in scheduled Miami service with seats arranged in pairs. Also, the 44 seats are spaced over room for 60. Three other DC-4 flights daily to Miami, via Cincinnati-Jacksonville. Delta now also serves Kokomo and Richmond, Ind.



For Reservations
Phone **FRAnklin 9855**
or your travel agent

Ticket Office:
67 East Monroe Street

And, there are NO extra fares on Delta

mail to and from the city. The year's total was 10,331,920 pounds, marking an increase of 16 per cent over 1946. Scheduled airline plane movements were similarly up from 119,852 to 124,430.

Indicative of its steadily increasing role in world wide aviation was the decision of the city last year to proceed with the development of Douglas Airport as a new air terminal for the Chicago area. This plan, as adopted by the city, contemplates the condemnation of more than 5,500 acres of land for the enlargement of the present field. When completed, the installation will cover 6,800 acres, establishing it as the largest commercial field now under contemplation throughout the country.

Last year the city also began construction of an airport on Northerly Isle, which will serve primarily as an airpark and will be used by private planes and possibly as a "downtown" base for transporting passengers by air to Municipal Airport.

Chicago may also take the lead in the establishment of helicopter mail route service. Such routes are now under contemplation, hearings before the Civil Aeronautics Board having been held on routes that would cover all principal towns within a 40-mile radius of Chicago.

WATER TRAFFIC

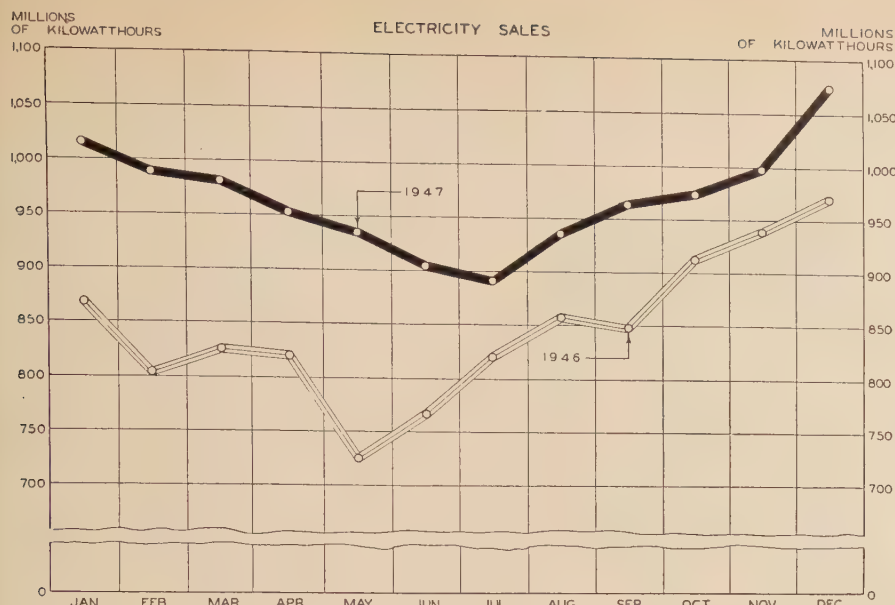
LAST YEAR witnessed vast strides in Chicago area waterway operations. With interruptions caused by labor troubles at a minimum, barge operations on the Illinois waterway in 1947 climbed to a record-breaking level of 9,572,357 tons on the basis of preliminary figures.

This volume came close to the waterway's ultimate goal of 10,000,000 tons, a figure originally set in 1933 but not expected to be reached until 1953. Last year's total far exceeded the previous record year of 1944, when, 7,803,577 tons of traffic moved over the inland waters.

The high volume of 1947 waterway traffic was partly due to the effective operations of army engineers who, at a cost of about \$300,000, kept the Illinois waterway open during most of the winter season. This action, in turn, was a significant factor in helping to ease an already critical transportation shortage, especially in the movement of coal and petroleum to the Chicago area.

Preliminary army statistics indicate that a total of 692,260 tons passed through the Lockport lock in December. The total comprised 376,050 tons of coal, 135,558 tons of petroleum products, 71,600 tons of grain, 4,940 tons of sulphur and 104,112 tons of miscellaneous cargos. All but 29,887 tons moved to the Chicago market.

Indicative of the success of the winter operations was the fact that December traffic of 962,908 tons, compared with 1,057,692 tons in November and 906,849 tons in October.



Record Demand Taxes Electric Output

THE use of electricity in the Chicago district reached an all-time peak in 1947, exceeding the previous record demands of the war years. The output needed to meet the record requirements taxed the generating facilities of the Commonwealth Edison Company system notwithstanding an increase of more than 100,000 kilowatts generating capacity during the year.

Electricity sales of the Edison system, comprising in addition to the Commonwealth Edison Company its associated utilities, Public Service Company of Northern Illinois, Western United Gas and Electric Company and Illinois Northern Utilities Company, totalled more than 11,600,000,000 kilowatt-hours in 1947, compared with 10,159,526,000 kilowatt-hours in 1946, an increase of over 14 per cent.

Record Expansion Underway

To meet the increased demand and to restore a comfortable margin of reserve generating capacity, the Edison system is now in the midst of the greatest construction program in its history. The postwar expansion program for the three-year period—1947, 1948 and 1949—will cost more than \$200,000,000, of which over \$60,000,000 was spent in 1947. The expansion program will carry beyond 1949 and, while the company has an-

nounced no estimate of cost beyond the three-year period, it is expected that an additional \$100,000,000 will be entailed.

The Edison system started 1947 with approximately 2,300,000 kilowatts of generating capacity. In September of that year, with the completion of a new unit at the Calumet station, this capacity was boosted past the 2,400,000 kilowatt mark.

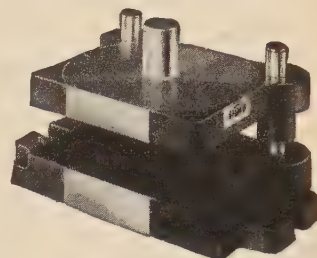
Demand Equals Expansion

The growth in use of electricity in the district was so persistent, however, that when the peak load was reached near the end of 1947, the reserve was no larger than it had been at the close of 1946, when it was approximately 50,000 kilowatts. A normal reserve would be equal to the system's two largest generating units, or 300,000 kilowatts.

Including the new generator placed in operation at the Calumet station last September, the Edison system expansion program provides for an increase in capacity of at least 514,000 kilowatts, and possibly 664,000 kilowatts, by 1951.

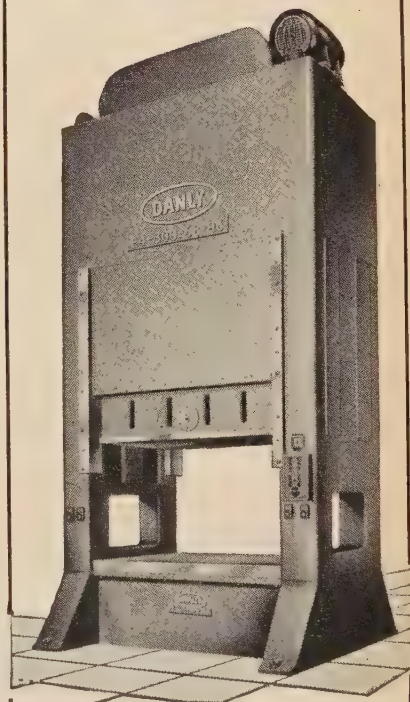
The new Calumet unit has a capacity of 107,000 kilowatts. In the Spring of 1949, a new 150,000 kilowatt generating unit is scheduled to go into operation at the Fisk station in Chicago, followed by a 107,000 kilowatt unit at the Joliet station of Public Service Company of

DANLY PRECISION DIE SETS



NECESSARY TO
GOOD PRESSWORK
EVERYWHERE

DANLY
PRESSES



THE PRESS FOR
MODERN PRODUCTION
**DANLY MACHINE
SPECIALTIES, INC.**

2100 South 52nd Avenue
Chicago 50, Ill.

PROTECTIVE DEARBORN SERVICES



Dearborn Boiler Water Treatment and Engineering Service completely protects boiler heating surfaces and feed lines from scale encrustation. Prevents pitting, corrosion, foaming. Individual scientific treatments formulated for industrial plant and railroad needs. Periodic inspection insures continuous, trouble-free operation.

Our research and chemical engineering facilities are available to you on your specific problems.



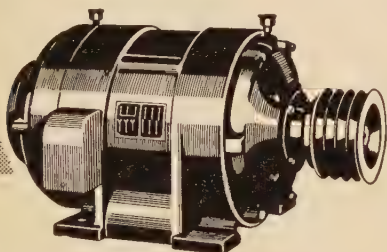
The original rust preventive, NO-OX-ID gives positive, lasting corrosion protection to parts and equipment in process, transit, or in storage. The tough, chemically inhibited coating excludes moisture and oxygen from metal surfaces, prevents underfilm corrosion.

Easily applied by brushing, dipping, or spraying.

Additional protection is provided by NO-OX-IDized Wrapper . . . also impregnated with rust-preventive chemicals.

DEARBORN CHEMICAL COMPANY

310 S. Michigan Avenue, Chicago 4, Illinois



**NEW AND
RECONDITIONED**

DISTRIBUTORS OF
"ALLIS-CHALMERS"
MOTORS
TEXROPE DRIVES
AND
V BELTS

All Phones
ARMitage 8300

ALL WORK GUARANTEED

MOTORS
SOLD

Repaired, Rented
Exchanged
Installed

WIRING
For
Power and Light
ELEVATORS
Repaired
Installed
Inspected
(WEEKLY - MONTHLY)

SIEVERT ELECTRIC CO.
INC.
1347-S1 BAUWANS ST.
CHICAGO 22

Northern Illinois in the Winter of 1949-50.

Work is already under way, also, on a new station at 4300 S. Ridgeland avenue in Stickney, to be located on the Sanitary Canal below the Cicero treatment works. The Illinois Commerce Commission recently issued a permit for this station.

The new station will have an original installation of 150,000 kilowatts but the first building will be large enough to house a second generating unit of the same size. Ultimately, the new Ridgeland station may have 600,000 kilowatts capacity. The first 150,000 kilowatt unit is scheduled to go into operation in 1951, and consideration is now being given to the installation of the second unit.

Concurrently with the increase in generating equipment, there will be a large-scale modernization and expansion of electrical distribution and transmission facilities.

Sales Up 75% Over 1939

Electricity sales of the Edison system grew from 6,680,000,000 kilowatthours in 1939 to a wartime peak of 10,526,876,000 kilowatthours in 1944. In 1945 and 1946, there was a slight drop from the 1944 top, but each year held well over the 10,000,000,000 kilowatthour level. The large growth last year to more than 11,600,000,000 kilowatthours brought the total to almost 75 per cent above the 1939 level.

While financial statistics for the full year 1947 are not available at this writing, it is indicated that revenues from all sources, and net income, for the year will be ahead of 1946.

For the twelve months ended September 30, 1947, Commonwealth Edison Company and subsidiary companies reported operating revenues of \$213,612,590 compared with \$192,552,406 in the preceding twelve months and it is believed that this rate of gain will be shown for the fiscal year ended December 31, 1947.

Of the \$213,612,590 total operating revenues, \$191,469,628, or approximately 90 per cent, was derived from electricity sales. The balance was accounted for chiefly by sales of gas in the amount of \$21,136,888. Consolidated net income totaled \$28,566,899 for the twelve months ended September 30, 1947, compared with \$26,370,007 in the previous twelve months.

The Commonwealth Edison Company itself furnishes electricity only within the city of Chicago. With the affiliated companies, an area of approximately 11,000 square miles in northern Illinois is served with electricity or gas, or both. The territory includes approximately 600 cities and towns and a population of about 5,000,000.

Use of Gas up 17%

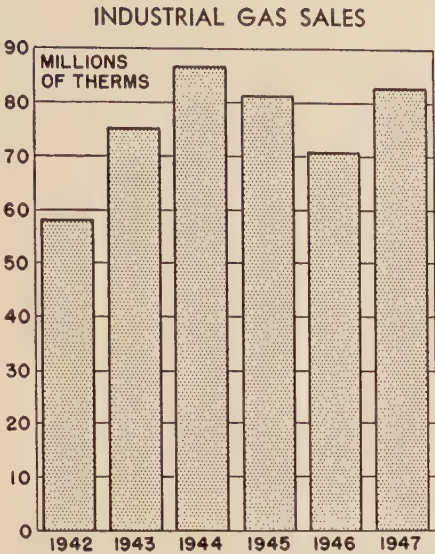
GAS consumption among general residential and commercial users turned up sharply in Chicago last year. The rise of 17 per cent for the year was attributed by Peoples Gas Light and Coke Company to a variety of circumstances. For one thing, colder weather produced a greater demand for heating. Considerably fewer work stoppages last year also tended to keep industrial activity at a more even pace in 1947, thus increasing the industrial consumption of gas. At the same time, there was an increase during the year in the number of residential space heating customers and those using gas for automatic water heating and refrigeration.

Thus, increased gas consumption was apparent in virtually all principal consumer categories: residential service increased 16 per cent; commercial use increased 11.6 per cent; industrial consumption was up 17 per cent; commercial and industrial space heating rose 20 per cent; and off-peak service (for large volume water heating, etc.) increased 27 per cent.

Chicago's increasing consumption of gas again focused attention upon the need for greater fuel availability. To help meet this need, the gas company last year expended about \$5,600,000 to augment plant and service facilities. This expenditure was part of a long-range plan to increase Chicago's availability of natural gas by approximately 146,500,000 cubic feet per day at a cost of roughly \$45,000,000, most of which is being spent by the Natural Gas Pipeline Company of America.

To Complete Project In '48

This project moved toward completion last year with the addition of some 69,000,000 cubic feet per day of additional natural gas by January 1, 1948. The remaining 77,500,000 cubic feet are expected to become available by the end of this year. Prior to the inauguration of this project, the big pipeline system extending from the Texas panhandle



supplied approximately 228,000,000 cubic feet of natural gas per day to the Chicago area. It is now estimated that as of January 1, 1949, there will be available to the Chicago area some 374,500,000 cubic feet per day.

To Build New Coke Ovens

As a further step toward augmenting the city's gas supply, contracts will be let this year for the construction of a battery of new coke ovens at the gas company's Crawford Station to replace some ovens which have been in use for more than 25 years. The new ovens, upon completion, will assist in maintaining the supply of coke oven gas necessary as a part of the mixed gas which is distributed within Chicago.

At the same time, studies are being made of the practicality of storing natural gas in liquid form for use in the Chicago area and also of the possibility of laying a third pipeline to this area. On this research program the company said in its annual review of operations, "Current market prices of competitive fuels make the estimating of future de-

GAS SALES IN CHICAGO—1947-46

	(In Therms)		
	1947	1946	Per Cent Increase
General Customers:			
Residential (including home heating)	224,457,089	193,526,004	15.98
Commercial	38,743,667	34,727,133	11.57
Industrial	82,904,135	70,748,771	17.18
Commercial and industrial space heating	21,888,560	18,221,221	20.13
Off-peak (large volume water heating, etc.)	40,470,907	31,887,284	26.92
Miscellaneous	451,355	451,233	.03
Total general customers' service	408,915,713	349,561,646	16.98
Interruptible service	75,430,267	133,510,741	43.50*
Other gas utilities	419,678,299	419,711,031	.01*
Total	904,024,279	902,783,418	.14

*Decrease.

Dreaming of Perfect Trouble-free Springs?

YOU CAN GET THEM FROM "ILLINOIS" . . .

- ALL TYPES
- ALL SIZES
- ALL MATERIALS

We'll Design Them for You or Make Them Exactly to Your Specifications

Either way, you'll be assured of precision workmanship — of getting springs that are all ways good — all ways uniform — that fit in as they should in assembly and perform as they should in service.

Where we are allowed to help in the design and engineering, our specialized experience often develops better, simpler ways of meeting spring requirements — substantially reducing costs on many jobs.

Try us and see. Prompt service, large orders or small.

Inquiries Invited

ILLINOIS COIL SPRING COMPANY

BERKSHIRE 6464

2100 N. MAJOR AVE., CHICAGO 39, ILL.

"NEW PROCESS"

**PUNCHES
DIES
RIVET SETS**

GEO. F. MARCHANT CO.

1420 S. Rockwell St.

Chicago 8

Building since 1892

**S. N. NIELSEN
COMPANY**

**BUILDING
CONSTRUCTION
CHICAGO, ILLINOIS**

FISHER-BUSSE CO.

Specializing in
**OFFICE & INDUSTRIAL
SOUND CONTROL**

176 W. Adams St. Chicago 3
CENTral 2343

mands exceedingly difficult at this time, but the company is vigorously seeking a solution to its problem of gas supply.

"Recognizing that it was impossible to obtain sufficient additional sources of gas supply in the near future, the company continued during the past year its policy of limiting the attachment of new or additional space heating in order that service to its general customers would

not be jeopardized. It is impossible at this time to forecast when the company can remove such restrictions and still protect the public interest. It is, of course, the primary obligation of the company to safeguard the service to more than 900,000 general customers who presently use gas for cooking, refrigeration, water heating, space heating and other purposes."

LOCAL TRANSPORTATION

CHICAGO'S 40-year-old vision of a publicly-owned city transportation system became an operating reality in 1947. The reality, as it shaped up at the turn of the year, was not yet, of course, the smooth-riding, efficiently-integrated transit organization that it is hoped to achieve in the future.

The initial step in the coordination of Chicago's system of subway, surface, and elevated transportation was taken on October 1, when the two systems became the property of the Chicago Transit Authority. The authority, an autonomous public body created by the Illinois state legislature in 1945, was financially underwritten last year through the successful sale of \$105,000,000 in new revenue bonds. Purchased by investors in 46 states and Africa, the bonds enabled the authority to acquire the Chicago Surface Lines and the Chicago Rapid Transit Company.

As an independent public body specifically exempted from Illinois Commerce Commission control, CTA is empowered to establish its own operating regulations and to revise fare structures.

Improvement Program

By the end of 1947, CTA was working on an impressive pattern of transportation improvements. In part, this program consisted of improvements previously planned and implemented by orders for equipment by the two privately-owned predecessor companies. Toward better service, the authority planned to spend \$150,000,000 for modern equipment and plant rehabilitation during the first 10 years of operation. The figure was almost twice the purchase price of the original properties. CTA planned to buy 2,725 modern buses to help in a planned campaign to eliminate miles of costly streetcar track; 600 streamlined street cars; and 1,000 all-metal subway-elevated cars. It further promised Chicago more and better safety devices, many miles of new bus lines, and the extension of existing routes. During its first three months of operation in 1947, the authority added 302 new streetcars and more than 525 new buses, and as its immediate target for 1948 CTA promised to spend \$30,000,000 for new equipment and facilities.

New equipment, however, was but one

phase of the authority's modernization program. In purchasing the Surface and Rapid Transit lines, CTA had taken over two organizations containing much duplication. The "consolidated" organization possessed two legal departments, two accounting departments, two auditing departments, two insurance departments, and so on. The integration process has now begun under a unification order issued early in 1948 and substantial operating economies are expected to be achieved.

Unify With Suburbs

CTA is also hopeful of extending its service through the purchase and unification of other transit properties operating within its territory. Under its legislative authority, CTA has been granted a 50-year franchise to operate within Chicago proper and to operate interurban service without franchise grants from adjoining cities. Early in 1948 the authority was preparing to start negotiations with the Chicago Motor Coach Company, the Chicago and West Towns Railway serving 32 western suburbs, and the Bluebird Bus Lines.

CTA's first annual operating budget for 1948 contemplates a gross income of \$107,217,694 and operating expenses, including pensions, depreciation and bond interest, of \$104,902,667. The balance of \$2,315,027 will finance payments into the bond reserve fund, the operating expense reserve fund, and city compensation. Cash for 1948 improvements will come from money on hand in the transit revenue fund and the modernization funds, plus accruals to the depreciation fund. Early operating results were not, however, particularly encouraging. For January, 1948, the system fell short of earning its \$318,745 monthly interest charge by \$75,360. Unearned charges for depreciation and bond retirement increased this deficit to \$615,693 for the month.

Thus the problems facing the new operation admittedly are difficult. Meanwhile, however, CTA officials have established among the goals for 1948, one, improving the regularity and dependability of service, two, improving and modernizing equipment, three, completing the integration of duplicate operating organizations, and, four, the construction of housing for new equipment.



Over 500 Personal Representatives in Canada for *your* business

How would you like to have over 500 able and well informed men working for you in Canada? That's exactly what you *can* have.

For the Managers of our 540 branches across Canada are ready to assist any American business firm, whether to help in the selection of a plant site and to carry through in its establishment or in any other of the many ways in which this unique Canadian institution can be of real practical aid.

*Your enquiry is
cordially invited*



*Monthly Commercial
Letter upon request*

THE CANADIAN BANK OF COMMERCE

Head Office: Toronto

540 Branches Across Canada

NEW YORK

SEATTLE

PORTLAND, ORE.

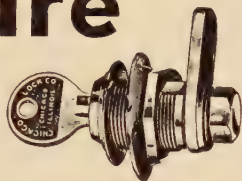
SAN FRANCISCO

LOS ANGELES

Chicago Locks



Insure



Security!

In the full line of Chicago Locks, there's a lock for every purpose—each engineered for top security. Padlocks, utility cylinder locks, drawer and cabinet locks, file cabinet locks, automobile and burglar alarm locks.

Write or phone today for catalog and price sheets. Or consult our engineers for help with your lock problems. No obligation.

CHICAGO LOCK COMPANY

2024 N. Racine Ave., Chicago 14, Ill.

HILD Floor Machines

SCRUB FLOORS CLEANER, FASTER



also wax, polish, buff, sand, grind and steel-wool floors of all kinds.

The HILD Shower-feed Floor Machine, pictured above at left, is equipped with a patented brush which distributes scrub-soap solution evenly and sparingly on the floor. Result: speedy, thorough scrubbing . . . no waste, no splashing.

The same machine . . . or the HILD Standard Floor Machine (at right, above) . . . is used with easily interchangeable attachments to condition floors of all kinds and to keep them sparkling clean and bright.



Write today for
FREE BOOK

HILD FLOOR MACHINE CO.

1313 W. Randolph St., Dept. CO-3, Chicago 7, Ill.

Big Expansion Made In Phone System

ONE postwar annoyance, the long wait for new telephone service, came to a virtual end for Illinois residents in 1947. Due primarily to an \$86,300,000 expenditure for new plants and equipment, which evened out at approximately a quarter-million-dollar investment per working day for Illinois Bell Telephone Company, the state-wide telephone waiting list was whittled by more than 50 per cent. By the year's end, 120,813 new residential phones and 47,047 new business phones had been installed, bringing the total state telephone population to more than two and one quarter million. In Chicago alone, 1,396,387 phones were in service at the year end, an increase during the year of 73,976. Investment-wise, the plant expansion was by far the greatest in Illinois Bell history, almost doubling, in fact, the previous record-high 1946 outlay.

The campaign to lick the big backlog of unfilled telephone orders had, by January 1, 1948, trimmed the waiting list to 42,000—a reduction of 45,800 from the previous January. On the same 1948 date, about 96 per cent of the current backlog consisted of 1947 orders, placed for the most part in the latter months of the year. Year-end statistics indicated the proportions of the 1947 expansion job. In 12 months the telephone company had stretched something like two and a quarter billion feet of new cable, completed six new exchange buildings and four mobile radio transmitter stations, and completed additions to 15 other buildings.

Despite this large scale improvement program, Illinois Bell's earnings were sharply reduced. Although total operating revenues for 1947 were \$174,387,843, an increase of more than 10 per cent over 1946, operating expenses climbed 16 per cent. Operating expenses rose to \$154,000,000, of which three-fifths of the increase was credited to advancing payrolls. Net income after all charges dropped to \$1,758,137 or 90 cents a share from \$9,055,787 or \$5.56 a share on the capital stock. Dividend payments of \$1.50 a share for the year on the stock totalled \$2,924,964.

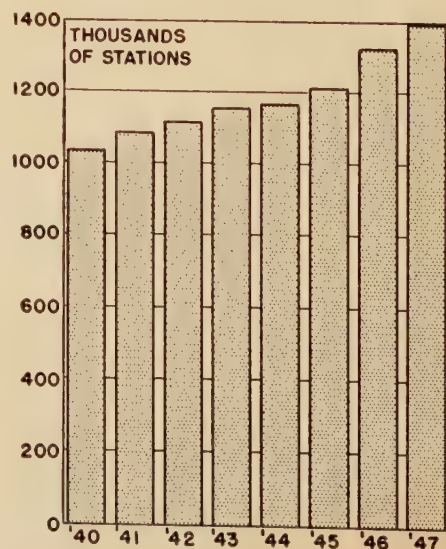
The company reported that despite a temporary rate increase obtained for the last five months of 1947, and a permanent increase obtained in the last month, its rate of return dropped to the lowest point in its 66-year history. Earnings

in the last quarter turned upward, however, amounting to 3.3 per cent on investment. The telephone company contends that it needs an additional upward rate adjustment, amounting to \$5,000,000 annually to insure financial strength.

Phone Use Soared

With more telephones and better service, local call volume continued to soar in 1947, far exceeding the record-shattering war months. Local calls were up five per cent, amounting to over three billion for the year or an average of 8,800,000 a day. Toll messages dropped four per cent, due partly to the telephone strike and a levelling off from postwar peak volume. Mobile telephone service, meanwhile, in completing its first full year of service, established itself as a significant addition to public telephone service. About 450 mobile telephones were being used at the end of 1947, chiefly by doctors, ambulances, truckers, public utilities, taxicabs, and lake vessels. They completed 115,000 calls while in transit. Also in 1947, highway mobile service (the first system of its kind in the world) was opened to customers traveling the highways and waterways between Chicago and St. Louis, and on December 11 highway service was made available to users in the vicinity of Rockford. At the end of the year far more people wanted mobile service than could be accommodated.

TELEPHONES IN USE



BUYERS OF PRINTING

National and Local
Should Know What
PRINTING PRODUCTS CORPORATION

Can Do For Them

Equipment and Organization is *unusual* — Operation is *Day and Night*.
Printing Counsel is given on Economical Production and Proper Quality.
Advertising Counsel is given on Methods, Copy and Illustrations.

SPECIALISTS IN THE PRINTING OF

CATALOGS • PUBLICATIONS

and printing requiring the same kind of equipment and organization to produce, such as Booklets, Price Lists, Flyers, House Organs, Convention Dailies, Proceedings of Conventions, Directories, College and Institutional Year Books, Paper Covered Books, Larger Quantities of Circulars, etc.

THERE is a large volume of the kind of printing Printing Products Corporation is best equipped and organized to produce, so if in doubt, it is best to write or phone what is wanted and information will be promptly given.

Here is complete equipment and organization to handle all or any part of printing orders in which we specialize—from ILLUSTRATIONS and COPY to MAILING.

Printing Products Corporation has system. No orders get lost or side-tracked. *Each order is assigned to an experienced executive who watches and follows the order from receipt of cuts and copy until delivered.*

Business methods and financial standing are the best, which statement is supported by customers, supply houses, credit agencies, First National Bank of Chicago and other banks. *Dun & Bradstreet, Inc., rates Printing Products Corporation and associates over \$1,000,000 highest standing.*

Proper Quality

because of up-to-date equipment and best workmen.

Quick Delivery

because of automatic machinery and day and night operation.

Right Price

because of superior facilities and efficient management.

A printing connection with a large, reliable printing establishment will save much anxiety regarding attentive service, quality and delivery.



A large, efficient and completely equipped printing plant.
(The former Rogers & Hall Company plant)

New Display Type
for all printing orders.

Clean Linotype
Monotype and Ludlow typesetting.

All Standard Faces
of type and special faces, if desired.

Good Presswork—
one or more colors.

Facilities for Binding
as fast as the presses print.

Mailing and Delivery
service as fast as copies are completed.

A SAVING is often obtained in shipping or mailing when printing is done in Chicago, the great central market and distributing point.

WE ARE STRONG ON OUR SPECIALTIES

Printing Products Corporation

(THE FORMER ROGERS AND HALL COMPANY)

PRINTER SPECIALISTS

Artists • Engravers • Electrotypers

Telephone Wabash 3380—Local and Long Distance
Polk and La Salle Streets, Chicago 5, Illinois

LUTHER C. ROGERS
Board Chairman and
Management Advisor

L. C. HOPPE
Vice Chairman
and Managing Director

A. R. SCHULZ
President and
Director of Sales

H. J. WHITCOMB
Vice President and
Assistant Director of
Sales

L. C. HOPPE
Secretary

W. E. FREELAND
Treasurer

CONTINENTAL CAN COMPANY



METAL CONTAINERS • CROWN CAPS AND CORK
PRODUCTS • PAPER CUPS • FIBRE DRUMS
PAPER CONTAINERS • PLASTIC PRODUCTS

•
For
74 Years
**BOWMAN
MILK**

*has been the
milk of
Superior
Flavor*

•

Grain Prices Soar On U. S. Export Buying

RECORD-BREAKING shipments of wheat overseas, a small crop of corn and expanded consumer buying power resulting from high wages, combined to bring about a spectacular rise in grain prices on the Chicago Board of Trade last year. The highest levels in 30 years, and in some cases all time record highs, were set by grain prices of 1947.

Flour production by United States mills in 1947 was of record size, totaling approximately 300,000,000 sacks of 100 pounds, as compared with 273,000,000 sacks in 1946. The wheat required to manufacture such a quantity of flour ran about 200,000,000 bushels in excess of a normal year's grind.

Exports of wheat and flour from the United States during the six months ending December 31 totaled approximately 325,000,000 bushels (flour in wheat equivalent) compared with 197,000,000 bushels for the corresponding period in 1946. For the entire 1946-47 season, ended June 30, 1947, exports of wheat and flour totaled 396,000,000 bushels compared with 387,000,000 bushels in the 1945-46 crop year. For ten years preceding our entrance into the war, exports annually averaged less than 100,000,000 bushels.

Prices started to work upward early in the year and from April onward the advance became increasingly rapid. December wheat ranged from \$2.06½ to \$3.20¼, December corn from \$1.35¼ to \$2.65 and December oats from 67½ cents to \$1.29½. Wheat reached its peak in November and corn and oats made their tops in December. Cash grains sold at premiums over the futures throughout the year, reflecting the continuously active demand.

Record Wheat Crop

Crops in 1947 furnished a record volume of wheat but much reduced supplies of feed grains. Wheat production at 1,365,000,000 bushels was the largest of record and with a carryover of 83,000,000 bushels of old crop grain gave the United States a total supply of 1,448,000,000 bushels at the start of the season, July 1. Total supply the previous crop year was 1,253,000,000 bushels.

Corn production of 2,401,000,000 bushels compared with the record 1946 harvest of 3,250,000,000 bushels, while oats

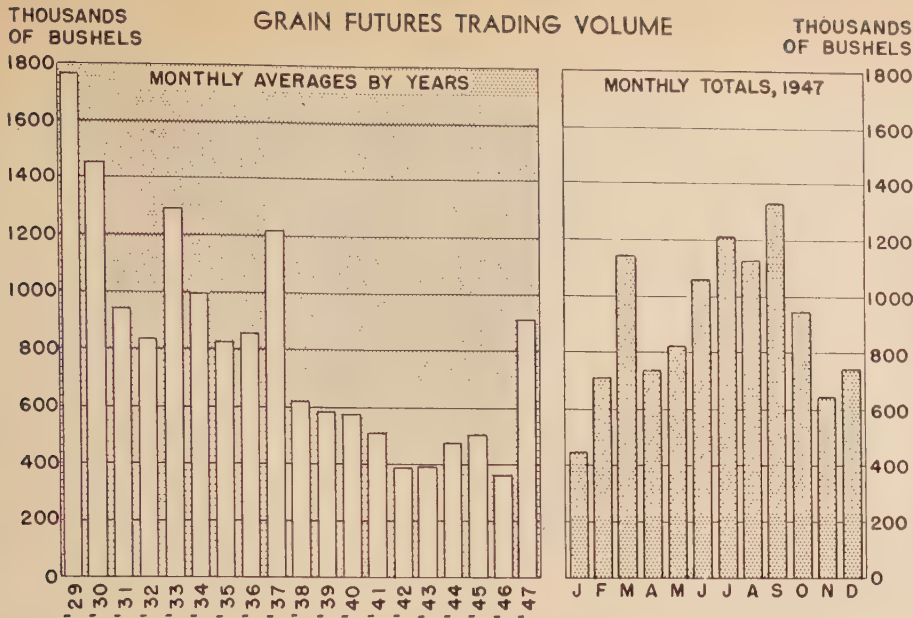
production was 1,216,000,000 bushels against 1,498,000,000 bushels in 1946. Including barley, the four leading grain crops aggregated 5,261,000,000 bushels in 1947, compared with 6,163,000,000 bushels in 1946. Production of soybeans in 1947 was 181,000,000 bushels against 201,000,000 in 1946.

Poor 1947 crops in Europe necessitated heavy importations of grain, mostly wheat and flour. Conditions were aggravated in many countries by government controls that forced a sizable portion of farm produce into black markets. Farmers fed grain to livestock because of better returns, as the price obtainable for their grain was controlled. The 1948 crop prospects in Europe are much improved and many restrictions have been removed to enhance the incentive to produce. In Canada wheat prices are still government controlled and wheat acreage there may again be curtailed this year. The Argentine government is offering producers in that country a larger portion of the export price, but reports indicate that farmers are still dissatisfied because of the wide disparity between the price paid them and the price paid by importers.

Heavy Government Buying

The government export agency was an aggressive buyer of cash wheat during the 1947 harvest movement and continued to buy well into November. This buying was stopped during the last six weeks of 1947, because producer marketings were getting small, and because the agency had already purchased a big portion of requirements. Including quantities held by the Commodity Credit Corporation at the beginning of the crop year, it was estimated that the agency had taken approximately 330,000,000 bushels of wheat and flour by the end of December. This left only 120,000,000 bushels to be purchased for export if the goal for the crop year remained at 450,000,000 bushels.

Volume of trading in grain futures was more than double that during 1946, but markets in the latter year were under ceiling price restrictions much of the time, and after ceilings were removed a long period of uncertainty prevailed. However, the 1947 volume of trade was the heaviest in ten years.



Greatest activity was during the Summer and early Fall months. The corn market held the center of the stage first because of rapidly deteriorating crop prospects resulting from the prolonged high temperatures and drouth during the month of August. After rains relieved the drouth and the advance in prices presumably discounted the damage, trading activity turned to wheat and in September and October wheat made its greatest gains in response to heavy export buying and the constant talk of shipping abroad all grain and flour that the United States could spare.

On October 16, President Truman stated that he had instructed the Attor-

ney General to investigate "gambling in the market." The subject of what was to blame for rising prices became an issue of sharp controversy. Members of commodity markets resented the charge that speculators were responsible. On November 5 the three principal grain exchanges of the United States—Chicago, Kansas City and Minneapolis—directed a request to the Joint Economic Committee of Congress for a special investigation to determine whether the rapid rise in commodity prices was occasioned by illegal and improper practices on the part of the exchanges, or by the government's buying program for export. This hearing was granted early in December.

GRAIN FUTURES VOLUME

Volume of sales in bushels of wheat, corn, oats and rye, and total of all grains, combined, on the Chicago Board of Trade. (000 omitted)

	Wheat	Corn	Oats	Rye	Total
January.....	104,614	158,371	184,990	.....	448,084
February.....	327,976	184,060	197,855	.....	709,958
March.....	428,611	339,000	373,338	.....	1,141,067
April.....	254,582	265,183	219,050	.....	738,875
May.....	272,451	346,093	202,882	.....	821,461
June.....	298,389	501,104	262,460	.....	1,061,953
July.....	465,261	487,454	261,729	.....	1,214,667
August.....	387,554	460,722	279,988	.....	1,128,951
September.....	666,754	378,567	282,686	.....	1,330,689
October.....	489,614	230,489	216,889	.....	945,639
November.....	278,228	217,584	145,818	.....	646,538
December.....	320,206	270,524	152,947	.....	745,720
Total 1947.....	4,294,240	3,839,151	2,780,632	.....	10,933,602
Total 1946.....	277,950	661,444	2,877,738	584,216	4,401,595
Total 1945.....	2,044,704	363,640	1,720,188	3,058,652	7,213,608
Total 1944.....	1,584,436	182,468	687,501	3,168,494	5,656,700
Total 1943.....	1,825,161	204,761	691,327	2,018,736	4,754,756
Total 1942.....	1,905,649	1,287,348	318,669	971,952	4,677,490
Total 1941.....	3,800,866	783,918	371,395	329,708	6,280,353
Total 1940.....	5,444,785	898,930	228,733	279,214	6,986,633
Total 1939.....	5,026,736	1,444,357	381,886	208,672	7,141,504
Total 1938.....	5,683,442	1,495,336	215,182	80,003	7,497,441
Total 1937.....	10,889,144	2,546,361	898,987	318,257	14,680,435
Total 1936.....	7,342,880	1,995,674	896,907	205,223	10,454,557

CASH GRAIN PRICE RANGE

Range of cash grain prices (contract grade) for the year 1947, with comparisons

	WHEAT			1946			1945	
	1947							
January.....	\$2.14 1/2	@ \$2.41		\$1.79			\$1.70	@ \$1.74
February.....	2.24	@ 2.39					1.70	@ 1.75 1/2
March.....	2.63	@ 2.89					1.78 1/2	@ 1.76 1/2

YOU CAN AFFORD...

The Expert Counsel of an Advertising Agency

if you spend \$100 a month for advertising

Let's talk over your advertising problem! Whether it be Magazine, Newspaper, Trade Publications, Radio or Sales Promotion —our *personalized* agency service will handle your COMPLETE advertising program at one reasonable price to you.

Give our agency principals a few minutes to show you down-to-earth SALES RESULTS we are producing for our advertising clients. CONSULTATION IS FREE.

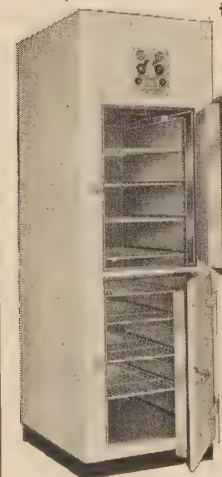
Phone HARRISON 2535—or write

Advertising Initiative

TWENTY EAST JACKSON BLVD.
HARRISON 2535



Accelerated peacetime production insures prompt delivery of "Anets" war-tested laboratory cabinets. Fully automatic, all-electric models with precision control



of temperature and humidity right at the turn of a dial. Used by leading manufacturers to test electrical and electronic assemblies. Weathering, moisture absorption control, package testing, incubation, germination and bacterial culture development. Processing plastics, fabrics, metals and wood. Fermentation, proofing and processing of food products. Chemical research.

AVAILABLE NOW IN STAINLESS STEEL

A new improved model with inner shell, ducts, air-conditioner, door linings, shelf hangers, heating units, etc., of stainless steel.

New, compact instrument panel with precision controllers and stainless steel dial thermometers. New, molded rubber door gaskets. Many other improvements. Write for Bulletin No. 170 or—

Phone NORTHBROOK 770

ANETSBERGER BROTHERS, INC.
172 Anets Drive Techny, Ill.



INDUSTRIAL SUPPLIES AND EQUIPMENT

BESLY GRINDERS

BESLY TAPS

BESLY TITAN ABRASIVE WHEELS

BRASS, COPPER AND BRONZE IN SHEETS, RODS AND TUBES

Established 1875

Charles H. Besly and Company

118-124 No. Clinton St.

Telephone Franklin 1224 Chicago 6, Ill.

CONVEYORS For All Purposes

DESIGNED BUILT MODERNIZED

Our main office and plant located in Chicago assure you best service and prices.

APRON PORTABLE
BELT PUSH BAR
CHAIN SPIRAL
GRAVITY CHUTES
ROLLER SORTING
AUTOMATIC ELEVATORS
ASH HOISTS
BUCKET ELEVATORS
CHUTES OF ALL KINDS

THE SUBVEYOR

Universal Food and Dish Conveyor for Restaurants, Hospitals, and Hotels.

**SAMUEL
OLSON
MFG. CO., INC.**

2418-32 W. Bloomingdale Rd.
CHICAGO 47, ILLINOIS

ARMITAGE
0 9 0 0



April.....	2.73 @ 2.75	1.71 @ 1.76 1/2
May.....	2.63 @ 2.73	1.72 1/2 @ 1.75 1/2
June.....	2.34 1/2 @ 2.70	1.76 @ 1.77
July.....	2.26 1/2 @ 2.44	1.64 1/2 @ 1.70
August.....	2.34 1/2 @ 2.56 1/2	1.64 1/4 @ 1.71 3/4
September.....	2.54 1/4 @ 2.92 3/4	1.66 @ 1.75 1/2
October.....	2.77 3/4 @ 3.16 1/2	1.76 @ 1.80
November.....	2.96 @ 3.15 1/2	1.80 1/2 @
December.....	3.06 1/2 @ 3.12	

CORN

	1947	1946	1945
January.....	\$1.31 3/4 @ \$1.38 1/2		
February.....	1.36 1/4 @ 1.61 1/2		\$1.16 @ \$1.25
March.....	1.59 1/2 @ 1.94 1/2		1.15 1/2 @ 1.28
April.....	1.60 @ 1.89 1/2		1.17 1/4 @ 1.27
May.....	1.65 1/2 @ 1.96	\$1.45 1/4 @ \$1.60 1/4	1.17 1/4 @ 1.32 1/4
June.....	1.91 3/4 @ 2.27		1.17 1/2 @ 1.19
July.....	2.11 @ 2.65	2.05 @ 2.29	1.18 1/2 @ 1.32 1/4
August.....	2.26 1/2 @ 2.90	1.82 @ 2.12	1.17 1/4 @ 1.34
September.....	2.31 1/2 @ 2.95	1.55 @ 2.06	1.18 1/2 @ 1.32 3/4
October.....	2.31 @ 2.75	1.34 @ 1.57	
November.....	2.39 @ 2.66 1/4	1.30 1/4 @ 1.42 1/2	1.18 1/2
December.....	2.54 3/4 @ 2.71		

OATS

	1947	1946	1945
January.....	\$0.80 1/2 @ \$0.95	\$0.81 @ \$0.88	\$0.79 @ \$0.82
February.....	.83 3/4 @ 1.01	.82 @ .86	.80 @ .85
March.....	.91 1/2 @ 1.06	.85 @ .89	.79 1/2 @ .85
April.....	.91 @ 1.01 1/4	.87	.70 @ .78
May.....	.95 3/4 @ 1.08	.84 @ .92	.68 1/2 @ .71 1/2
June.....	.96 1/4 @ 1.13 1/2		.68 @ .75 1/4
July.....	.91 1/4 @ 1.17	.74 @ 1.05	.65 3/4 @ .74 1/2
August.....	.97 @ 1.18 1/2	.74 1/2 @ .82 1/4	.59 @ .70 3/4
September.....	1.08 @ 1.30 1/2	.78 @ .88	.60 1/4 @ .70 1/4
October.....	1.09 1/2 @ 1.32 1/4	.81 1/2 @ .92 3/4	.65 @ .73 1/4
November.....	1.15 1/4 @ 1.37	.78 1/4 @ .93 1/4	.71 3/4 @ .83 1/2
December.....	1.25 1/2 @ 1.39	.81 @ .94 1/4	.78 @ .86

BARLEY

	1947	1946	1945	1944
January.....		\$1.15 @ \$1.39 1/2	\$0.95 @ \$1.35 1/2	
February.....	\$1.30	1.10 @ 1.39 1/2	1.35 1/2	
March.....		1.14 @ 1.43 1/2	1.13 @ 1.36 1/2	
April.....		1.14 @ 1.43 1/2	.83 @ 1.35 1/2	
May.....		1.14 @ 1.52 1/2	.94	
June.....		1.23 @ 1.52 1/2	1.15 @ 1.35 1/2	
July.....	\$1.60 @ \$1.75	1.23 @ 1.72	1.13 @ 1.27	
August.....	1.66 @ 2.48	1.30 @ 1.78	1.35 @ 1.35 1/2	
September.....	1.69 @ 2.47	1.40 @ 1.63	1.05 @ 1.38 1/2	
October.....	1.65 @ 2.52	1.23 @ 1.78	1.09 @ 1.29	
November.....	1.70 @ 2.70	1.15 @ 1.78	1.16 1/2	
December.....	1.85 @ 2.82	1.10 @ 1.82		

FUTURES PRICE RANGE DECEMBER WHEAT

	1947	1946	1945	1944
January.....		\$1.72 1/2 @ \$1.80 1/2	\$1.49 1/4 @ \$1.58 3/4	\$1.66 3/4 @ \$1.71 3/4
February.....		1.80	1.50 1/2 @ 1.55 1/2	1.63 @ 1.68 3/4
March.....	\$2.09 @ \$2.28	1.80 3/4 @ 1.83 1/2	1.50 1/2 @ 1.57 1/2	1.65 1/2 @ 1.68 3/4
April.....	2.08 1/2 @ 2.21 1/2	1.83 1/2	1.52 1/2 @ 1.59 3/4	1.64 3/4 @ 1.69 3/4
May.....	2.12 3/4 @ 2.30 1/4	1.83 1/2	1.58 @ 1.65 1/2	1.59 3/4 @ 1.65 3/4
June.....	2.06 1/2 @ 2.23	1.83 1/2 @ 1.98 1/2	1.61 1/2 @ 1.69 1/2	1.55 3/4 @ 1.62 3/4
July.....	2.13 1/4 @ 2.39	*No trading	1.61 @ 1.65 3/4	1.55 3/4 @ 1.62 3/4
August.....	2.27 1/4 @ 2.56 3/4		1.61 1/2 @ 1.67 3/4	1.52 3/4 @ 1.65 3/4
September.....	2.50 3/4 @ 2.91 1/4		1.63 3/4 @ 1.73	1.47 @ 1.64
October.....	2.74 1/2 @ 3.12 1/4		1.72 3/4 @ 1.78 5/8	1.62 3/4 @ 1.67 3/4
November.....	2.86 1/4 @ 3.20 1/4		1.77 3/4 @ 1.80 1/2	1.62 1/2 @ 1.66 3/4
December.....	2.99 @ 3.16		1.80 1/2	1.65 1/4 @ 1.71 1/2

*Closed out all contracts June 13. Resumed August 26 in January-March-May contracts.

MAY WHEAT

	1947-48	1946-47	1945-46	1944-45
June.....	\$2.04 1/2 @ \$2.26 1/2		\$1.59 3/4 @ \$1.69	\$1.56 1/4 @ \$1.64
July.....	2.09 @ 2.35 3/4		1.61 1/2 @ 1.65	1.56 1/2 @ 1.64 1/2
August.....	2.23 @ 2.52 1/2	\$1.86 1/4 @ \$1.96	1.59 1/2 @ 1.67 1/4	1.50 1/2 @ 1.56 3/4
September.....	2.46 3/4 @ 2.86	1.80 @ 1.95 3/4	1.61 3/4 @ 1.70	1.44 @ 1.61 1/2
October.....	2.63 1/2 @ 2.99	1.84 @ 2.03	1.69 1/2 @ 1.76 3/4	1.57 1/4 @ 1.64 1/4
November.....	2.75 @ 3.06 3/4	1.86 @ 1.96 3/4	1.76 @ 1.80 1/2	1.57 1/2 @ 1.62 1/2
December.....	2.89 @ 3.03 1/2	1.86 @ 1.98	1.76 @ 1.80 1/2	1.61 3/4 @ 1.65 1/2
January.....		1.90 1/2 @ 1.98 1/2	1.80 1/2	1.59 1/2 @ 1.65 3/4
February.....		1.98 3/8 @ 2.40 3/4	1.80 1/2	1.60 1/2 @ 1.65 1/4
March.....		2.37 1/2 @ 2.80	1.80 1/2 @ 1.83 1/2	1.64 @ 1.72 3/8
April.....		2.41 3/4 @ 2.66 3/4		1.71 @ 1.76
May.....		2.58 1/4 @ 2.85		1.73 @ 1.77

†Closed out at ceiling March 27.

JULY WHEAT

	1947-48	1946-47	1945-46	1944-45
August.....	\$2.07 1/2 @ \$2.26 1/2	.....	\$1.50 1/2 @ \$1.61 1/4	\$1.45 @ \$1.51 3/4
September..	2.23 @ 2.65 1/2	.....	1.54 @ 1.61 3/4	1.36 @ 1.45 3/4
October.....	2.39 @ 2.67	.....	1.60 3/4 @ 1.71 3/4	1.46 1/4 @ 1.54 3/4
November..	2.43 3/4 @ 2.72 1/4	\$1.69 3/4 @ \$1.86 3/4	1.69 3/4 @ 1.78 1/2	1.45 @ 1.54 1/4
December..	2.53 @ 2.70	1.70 1/2 @ 1.82 3/4	1.75 3/4 @ 1.79 3/4	1.52 1/2 @ 1.56 3/4
January....	.....	1.74 1/2 @ 1.83	1.75 3/4 @ 1.80 1/2	1.50 1/2 @ 1.60
February...	.....	1.83 @ 2.16 1/4	1.80 1/2	1.51 3/4 @ 1.56 3/4
March.....	.....	2.11 @ 2.45	1.80 1/2 @ 1.83 1/2	1.54 3/4 @ 1.62 3/4
April.....	.....	2.15 @ 2.31 1/2	1.83 1/2	1.57 3/4 @ 1.66 1/2
May.....	.....	2.21 @ 2.42 1/2	1.83 1/2	1.61 3/4 @ 1.70 1/4
June.....	.....	2.07 3/4 @ 2.33	1.98 1/2	1.64 3/4 @ 1.72 3/4
July.....	.....	2.17 @ 2.44 1/4	.....	1.62 3/4 @ 1.69

DECEMBER CORN

January contract for 1947

	1947	1946	1945	1944
April.....	\$1.35 1/4 @ \$1.54	.....	.....	.....
May.....	1.38 1/2 @ 1.57 3/4	\$1.44 3/4 @ \$1.46 1/2	.....	.....
June.....	1.52 1/2 @ 1.65 3/4	1.46 1/2	\$1.12 1/2 @ \$1.18 3/4	.....
July.....	1.61 3/4 @ 1.95 1/4	1.36 1/2 @ 1.73	1.17 1/4 @ 1.18 1/4	.....
August....	1.94 1/4 @ 2.30 1/4	1.29 1/2 @ 1.47	1.12 3/4 @ 1.18 1/2	.....
September..	2.10 1/2 @ 2.48 3/4	1.30 @ 1.44 1/2	1.13 3/4 @ 1.17 1/2	\$1.07 @ \$1.16
October....	2.13 3/4 @ 2.38	1.32 1/2 @ 1.48	1.16 3/4 @ 1.18 1/2	1.09 1/2 @ 1.15 3/4
November..	2.25 @ 2.62	1.26 @ 1.37 3/4	1.18 1/2	1.05 3/4 @ 1.13 3/4
December..	2.50 @ 2.65	1.28 @ 1.37 3/4	1.18 1/2	1.18 1/2 @ 1.17 3/4

DECEMBER OATS

	1947	1946	1945	1944
January....	.....	\$0.69 1/2 @ \$0.80 3/4	\$0.57 @ \$0.58	.....
February...	.....	.77 1/2 @ .80 3/4	.57 1/2 @ .60 3/4	\$0.72 @ \$0.74
March.....	\$0.67 1/2 @ \$0.73 3/4	.76 1/2 @ .82 1/4	.52 1/2 @ .59 1/2	.72 3/4 @ .77 3/4
April.....	.70 3/4 @ .75 3/4	.77 @ .82 3/4	.53 1/2 @ .57 3/4	.72 1/2 @ .76 1/2
May.....	.72 1/2 @ .83 3/4	.79 3/4 @ .83	.56 3/4 @ .65 1/4	.70 @ .74 1/2
June.....	.78 3/4 @ .88 3/4	.81 1/2 @ .88	.62 @ .68 3/4	.67 @ .72 1/2
July.....	.84 @ .94 3/4	.70 1/4 @ .90 1/4	.61 3/4 @ .67	.69 3/4 @ .73 1/2
August.....	.91 1/2 @ 1.10 3/4	.69 3/4 @ .75	.56 3/4 @ .65 1/2	.64 1/4 @ .70 1/2
September..	1.03 1/4 @ 1.24	.71 @ .79 1/2	.58 3/4 @ .65 1/4	.55 @ .65 1/2
October....	1.06 @ 1.23 1/4	.73 1/4 @ .85 1/4	.62 1/2 @ .68 1/4	.62 1/2 @ .68 3/4
November..	1.10 3/4 @ 1.28	.72 @ .82 3/4	.65 @ .78 3/4	.62 3/4 @ .69
December..	1.20 3/4 @ 1.29 3/4	.77 1/2 @ .87 1/2	.73 1/4 @ .78 3/4	.68 @ .72 3/4

LIVESTOCK MARKET SETS MANY NEW RECORDS

LIVESTOCK prices reached record high levels in the Chicago market in 1947, reflecting higher cost of feed, expanded consumer demand for meat, diminishing supplies in sight, and the general prosperity of the nation that frequently is referred to as inflation.

Many records in the livestock industry were broken. Total income from livestock exceeded that in any other year, and the total value of all meat animals slaughtered during the year was estimated at \$9,488,000,000, a new peak by a wide margin. The previous high mark was \$6,894,412,000 in 1946. Contrasting this with value in pre-war years, the 1940 total was \$2,453,239,000.

Including animals slaughtered on farms, the output in 1947 was estimated at 23,741,136,000 pounds. This compared with 22,961,000,000 pounds in 1946 and with the record volume of 25,181,000,000 pounds set in 1944. In 1941, the year the United States entered the war, meat output was 19,577,000,000 pounds, and in 1938 the total was 16,479,000,000 pounds.

Native beef cattle in the Chicago market sold as high as \$41 a hundredweight. This record was reached in the month of December. The low for the year of the various weights was \$17, established

in January. Total value of all types of cattle received in the Chicago market last year was \$459,580,537, far above the previous record of \$336,771,282 in 1945.

A top price of \$30.50 a hundredweight was paid for hogs, highest in the history of the stock yards. The previous high, \$27.50, was established in 1946. Lowest hog price for 1947 was \$17.25, and the average price of hogs for the year was \$24.65, which compared with the previous high record of \$18.05 in 1946. Total value of hogs received in the Chicago yards last year was \$216,796,532, which compared with a previous high of \$216,839,342 in 1943, when the receipts were nearly 2,500,000 head larger.

Sheep And Lamb Trade Off

The feature of the sheep and lamb trade last year was the big drop in receipts. Chicago received 968,094 head, compared with 1,486,733 head in 1946 and 2,389,871 head in 1943. Because of high prices, value of receipts was not far below that of recent years. Average yearly price of slaughter lambs was \$23.15 a hundredweight, a record high and \$4.90 above last year's average price.

While the total number of meat ani-



BRIGHT ZINC PLATING

CADMIUM PLATING

PARCO LUBRIZING

PARKERIZING

BONDERIZING

WESTERN

RUST-PROOF CO.

2137-2157 WALNUT ST.

CHICAGO 12, ILLINOIS

Phone Seeley 1692

IF THE CHICAGO MARKET IS IMPORTANT TO YOUR BUSINESS—
COMMERCE IS IMPORTANT TO
YOUR ADVERTISING SCHEDULE.

BELLOWS

Made for any size Camera
EXPERT CAMERA REPAIRS

United Camera Co. Inc.

1515 W. Belmont, Dept. C.
Buckingham 8100

AMLING CO.

WHOLESALE ONLY

Leading wholesale florists since 1893
catering to the trade exclusively
1435 S. Wabash Ave., Chicago 5, Ill.
Telephone HARRison 3420



Thousands of our customers have availed themselves of the advantages of this practical, comprehensive bank credit service for

- personal and business needs
- home improvement and remodeling
- household equipment and appliances
- aircraft and pleasure boats
- new and used cars

In the functioning of consumer credit, there is no substitute for experience.

NATIONAL
BANK OF COMMERCE OF CHICAGO
4010 WEST MADISON STREET • VAN BUREN 1500
Member Federal Deposit Insurance Corporation



**BANKING
HEADQUARTERS
AT THE
CHICAGO UNION
STOCK YARDS**

*Industrial, Agricultural
and Livestock Financing
Since 1868*

The
LIVE STOCK
National **BANK** of Chicago
ESTABLISHED 1868
UNION STOCK YARDS
David H. Reimers, President
Member Federal Deposit Insurance Corporation

imals slaughtered during the year was smaller than in 1946, there was a big expansion in beef production, and this largely offset the shrinkage in hogs and sheep. The total number of animals slaughtered in 1947 was estimated at 128,966,000, compared with 131,050,000 in 1946 and 131,866,000 head in 1945. All time high in animals butchered in any year was 157,509,000 in 1944, while the total in the pre-war year of 1938 was 105,478,000.

Cattle slaughter for the year was 22,860,000 head, largest of record. In 1946, 19,824,000 head were slaughtered. The previous record was 21,691,000 head in 1945, while the prewar year of 1938 had a total of only 14,822,000 head. Beef production amounted to 10,575,600,000 pounds, which compared with 9,378,000,000 pounds in 1946 and previous high of 10,279,000,000 pounds in 1945. Highest annual beef tonnage before the war was 8,246,000,000 pounds, in 1934, when liquidation of stock was caused by the great drouth.

Hog Receipts Off

The decrease in the number of hogs that came to livestock markets in 1947 was quite pronounced. Production of pork for the year was 10,675,000,000 pounds compared to 11,173,000,000 pounds in 1946 and the record tonnage of 13,640,000,000 pounds in 1943. Average weights of hogs was somewhat higher than in 1946 and production of lard for 1947 was 2,195,280,000 pounds against 2,138,000,000 pounds in 1946. Record production of lard, in 1944, was 3,054,000,000 pounds.

Lamb and mutton tonnage in 1947 was the smallest since 1929, at 786,996,000 pounds, compared with 970,000,000 pounds in 1946 and the record of 1,104,000,000 pounds in 1943. A total of 18,738,000 sheep and lambs were butchered last year, compared with 22,814,000 in

1946 and the 1943 record number of 27,073,000.

All cattle for the nation established an average price of \$19 a hundred pounds, against \$14.66 in 1946, the former record, and \$7.06 in 1938. The total value jumped to \$4,000,000,000 as against \$2,735,712,000 in 1946. Per head value of cattle in 1947 was \$175 as against \$138 in 1946 and \$75 in 1940.

Receipts of Livestock at Chicago as published in the annual report by Union Stock Yards and Transit Company of Chicago; and valuation of the various species:

CATTLE

	No. of Head	Value
1947.....	2,089,433	\$459,580,537
1946.....	1,959,549	321,109,070
1945.....	2,390,676	336,771,282
1944.....	2,339,829	286,835,566
1943.....	2,143,129	295,948,020

CALVES

1947.....	271,229	\$ 10,975,610
1946.....	194,243	6,151,128
1945.....	229,584	6,241,725
1944.....	287,335	7,485,579
1943.....	216,899	5,779,791

HOGS

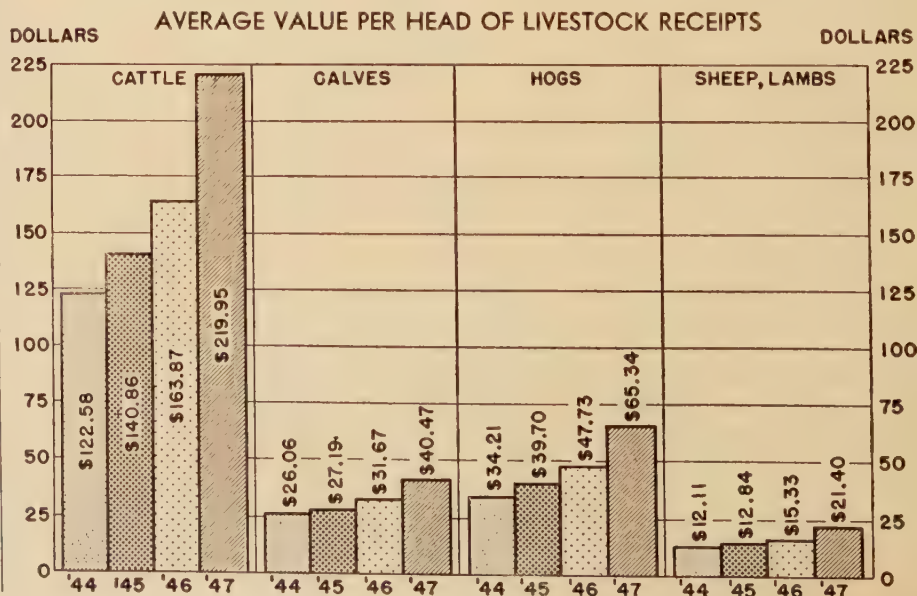
1947.....	3,317,949	\$216,796,532
1946.....	3,541,340	169,022,074
1945.....	3,516,182	139,597,700
1944.....	6,018,098	205,857,771
1943.....	5,791,541	216,839,342

SHEEP AND LAMBS

1947.....	968,094	\$ 20,718,750
1946.....	1,486,733	22,785,621
1945.....	1,874,566	24,061,185
1944.....	2,055,797	24,895,772
1943.....	2,389,871	30,313,204

AVERAGE VALUE PER HEAD OF LIVESTOCK RECEIPTS AT CHICAGO

Cattle...	\$219.95	\$163.87	\$140.86	\$122.58
Calves...	40.47	31.67	27.19	26.06
Hogs...	65.34	47.73	39.70	34.21
Sheep, Lambs.	21.40	15.33	12.84	12.11



PRICES ERRATIC ON MERCANTILE EXCHANGE

HIGHLY erratic price movements in butter, egg, and onion futures highlighted trading on the Chicago Mercantile Exchange during 1947. The fast changing supply and demand picture contributed to the widest price range in all futures since the early '20s and the heaviest volume since the exchange was organized in 1919. Volume totaled 155,805 carlots, compared with 147,382 in 1947 and 46,159 in 1945.

Shell egg futures followed a steadily upward course from the first of the year until mid-July when prices broke sharply only to rally again and attain a 27-year high in early September of 58.55 cents a dozen. Contributing to the firmness during the fore part of the year were the small production of eggs—due to unfavorable weather conditions and high feed prices—substantial U.S. government support buying of frozen and dried eggs, and near-record egg consumption. Along with these developments, merchandisers were reluctant to build storage inventories because of pessimistic economic forecasts. As a result, reserves in U.S. warehouses on August 1 were the smallest since records were first maintained in 1916.

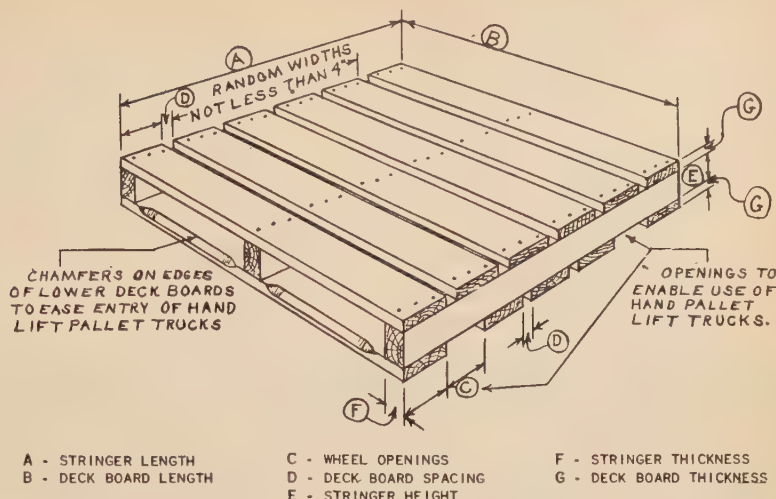
Government Support Dropped

The withdrawal of government support in mid-July halted the six-month advance and turned price downward. However, an expected general business recession and consequent reduction in consumer demand for eggs did not materialize and prices firmed and then moved upward until mid-September when nation-wide consumer resistance to high prices started a six-week price break which ended in early November. In this movement prices declined 1,500 points (15 cents a dozen). The sell-off was significant in view of the acutely short supply of storage eggs, which at one time prompted comments that the commodity would have to be allocated to make the supply suffice until the new season opened.

Butter Trade Slow

Butter was slow early in the year in exhibiting a definite trend. Traders had to re-acustom themselves to trading in the commodity after a lapse of four years. Hedging pressure during the early months acted to check price advances.

It wasn't until May that prices started a sharp upward movement because of light storage stocks, declining production, and a high rate of domestic consumption. Hot weather during August reduced the



Seasoned Hardwood Pallets

• Ordering our seasoned hardwood pallets gives you an important saving in initial cost. Their light weight means lower freight. Fill in specifications above or send us your drawings for prompt quotation.

CONSTRUCTION AND INDUSTRIAL LUMBER
AND MILLWORK.

Sterling

LUMBER AND SUPPLY CO.

11900 South Halsted Street
Chicago 28

PHONE PULman 0221



Plating Generator

Everything
for
Plating and
Polishing



Buffing Compositions

Complete Plating Plants Installed

CHAS. F. L'HOMMEDIEU & SONS CO.

General Office and Factory
4521 Ogden Ave.

BRANCHES
Cleveland, Los Angeles

CHICAGO 23, ILLINOIS



*A convenient place to save with safety
and get a good income from your money*

BELL SAVINGS AND LOAN ASSOCIATION

30 NORTH LA SALLE STREET, CHICAGO 2

Phone FINancial 1000



Organization Structure

Develop a pattern to guide
current and long-range
organization planning

GEORGE FRY & ASSOCIATES

incorporated

CONSULTING MANAGEMENT ENGINEERS
135 SOUTH LASALLE ST • CHICAGO
285 MADISON AVENUE • NEW YORK



Marine Terminal Refinery
CHICAGO, ILL. CENTRALIA, ILL.
General Offices
FOREST PARK, ILL.—AUSTIN 4300

AMERICAN PLANO-LITH COMPANY

OFFSET and LETTERPRESS PRINTING
161 W. Harrison St. Chicago 5
WABash 9586-87

Pl anographing
In One or
More Colors
COMPLETE
SERVICE

Mid-States Auto Electric Co.

1905 So. Michigan Ave.

Chicago 16, Ill.

AUTHORIZED CENTRAL DISTRIBUTORS

For

Auto-Lite.....Electrical Equipment and
Service Parts—Batteries—Spark Plugs—
Lamp Lens—Generators—Starters—Regu-
lators—Ignition Distributors—Electric
Windshield Wipers, Gauges, Speedome-
ters and Horns—Automotive Wire and
Cable—Sealed Beam Headlight Units

Briggs & Stratton.....Gasoline Engines and
Service Parts, Locks, Keys and Key Cut-
ting Machines

Carter.....Carburetors and Service Parts—
Gasoline Filters

Eclipse Bendix.....Starter Drives and Parts

Eisemann.....Magnetos and Service Parts

Handy.....Engine Governors

Houdaille.....Shock Absorbers

Imperial Brass.....Brass Fittings for Copper
Tube and Flexible Fuel and Oil Lines a
Tube and Flexible Fuel and Oil Line and
Flexible Fuel and Oil Lines Assembly

King-Seeley.....Gasoline and Heat Indicators

Purolator.....Oil Filters and Elements

Shaler.....Rislon and Karbont-Tire Hot
Patches and Vulcanizers

Sisson.....Automatic Carburetor Chokes

Tillotson.....Carburetors and Service Parts

Trico.....Vacuum Windshield Wipers, Arms
and Blades and Repair Parts, Windshield
Washers and Horns

Tung-Sol.....Lamp Bulbs and Sealed Beam
Units

SALES and SERVICE

Victory 2828

milk supply by drying up pastures and it also resulted in a diversion of milk from butter-making to the manufacture of other dairy products. At the same time manufacturers of dairy products other than butter were absorbing a larger than normal portion of the milk supply to satisfy the heavy export demand. Attractive domestic cheese prices also hurt butter production.

As a result of these factors butter prices increased daily, climbing to almost 77 cents in September. Then a sharp break, attributed to buyer resistance, tumbled quotations 12 cents a pound in one month.

End Year At Peak

Increased domestic demand as the holiday season approached, coupled with record low storage supplies and a smaller than average fresh production, started prices up once more. Both futures and cash prices continued climbing until they ended the year with all-time highs.

The butter futures market afforded the dairy industry an opportunity for the first time in four years to market their wares without the risk of loss from price fluctuations. That creameries, dry milk makers, cheese people, and milk distributors seized the opportunity to hedge was evidenced by the large trading volume. Transactions in butter on the Exchange totalled 17,181 carlots—the equivalent of 339,875,200 pounds.

Onions—the comparatively new commodity in the futures contract field—commanded more attention during 1947 than during any year since futures trading started in 1942. Volume totalled 6,213 carlots as compared to 3,916 in 1946 and 976 in 1945.

During 1947, 77 new members were elected to the Chicago Mercantile Exchange. The value of a seat rose from \$3,000 to \$3,600, the highest price in 17 years. The exchange approved 67 warehouses throughout the country for storing and delivering purposes.

FUTURES PRICE RANGE

Shell Eggs

(Cents per dozen in units of 18,000 dozen)

Delivery	Open	High	Low	Close
Oct., 1947...	38.00	58.55	36.75	49.00
Nov., 1947...	46.50	58.00	43.15	47.45
Dec., 1947...	53.50	57.95	43.75	53.50
Jan., 1948...	47.00	54.05	39.75	41.25

Butter

(Cents per pound in units of 19,200 pounds)

Nov., 1947...	54.00	76.95	53.50	70.85
Dec., 1947...	68.00	74.50	67.30	74.50
Jan., 1948...	65.00	82.50	64.75	80.00

Onions

(Per 50-lb. sack in units of 40,000 lbs.)

Nov., 1947...	\$1.35	\$3.80	\$1.25	\$3.40
Jan., 1948...	1.72	4.28	1.72	4.17

Bank Loans Rise— Rates Firm

CHICAGO'S commercial banks, in common with banks throughout the nation, last year were affected by three principal factors:

1. The steadily rising demand for all types of loans caused by both booming business conditions and the further inflation of the price level. This increasing need for credit not only resulted from but contributed to the upward price movement. As prices rose, more borrowing was required by business to meet capital needs and by consumers to maintain living standards. The credit so created in turn placed new pressure on prices.

2. The anti-inflation program of the treasury, the Federal Reserve System and private trade associations of bankers.

3. The treasury's debt management operations, which were complex and at times appeared conflicting. The consistent purpose of these operations, however, was to combat inflation by tightening credit conditions without at the same time seriously reducing the price of government securities.

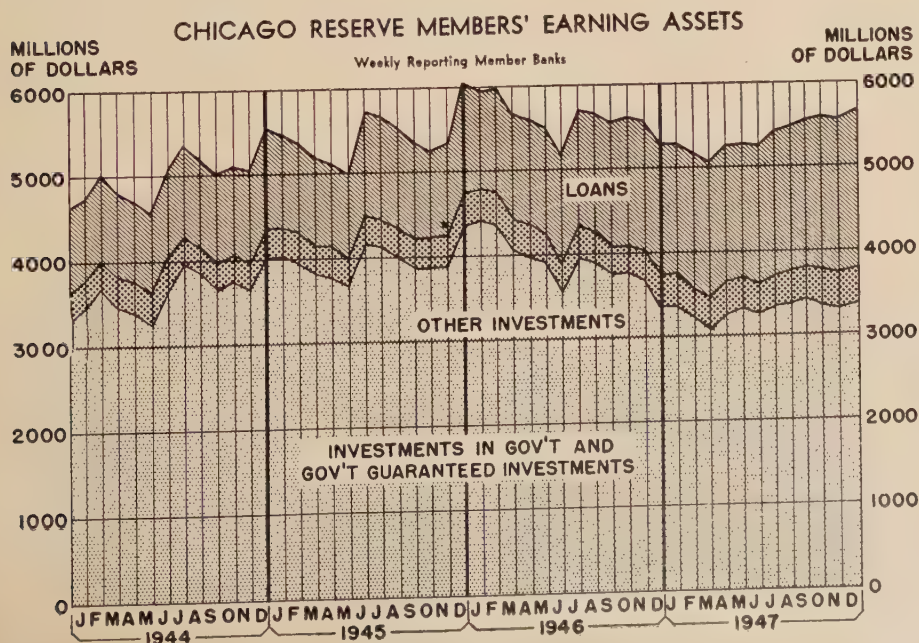
Reflecting these underlying influences, there was a definite firming of interest rates and the banks exercised growing conservatism in extending credit, particularly toward the close of the year. Loan applications were subject to more critical examination, both as to their amounts and purposes. In general, loans which were

for speculation rather than for purposes of increasing production were frowned upon. Toward the year end, a decided tightening in the market for real estate loans also appeared, but over the year there was substantial net gain in outstanding mortgage loans.

A marked gain also occurred in total volume of consumer credit outstanding during 1947, both nationally and locally. On a national basis, a gain of more than 30 per cent occurred in the first 10 months of the year, while the wartime regulation W controlling such credit was still in force. Expiration of this control on November 1 left too little time in the remainder of the year to disclose whether the uptrend was accelerated or not.

Business Turns To Banks

Due to the fact that the security markets were unfavorable to the flotation of new securities, the increase in demand for credit from business was largely borne by the banks, particularly in the latter part of 1947. This was reflected in a rise of \$314,000,000, or almost 20 per cent, in the loans of weekly reporting member banks of the reserve system in Chicago during the year. At the close of 1947, the weekly reporting member banks had a total of \$1,894,000,000 outstanding in loans, compared with \$1,580,000,000 a year earlier. The banks' investment in other than gov-



ARCHITECTS BROKERS CONTRACTORS

Write, telephone, or come in, if we can be of service to you and your clients on a Real Estate Mortgage loan or the construction or purchase of property, and mortgage refinancing. You are assured of complete, intelligent, personal co-operation.

You get quick action, low interest, and the right term of years.

PERCY WILSON MORTGAGE & FINANCE CORPORATION

134 North La Salle St.

Telephone Central 8270

COMMERCIAL
AND
INDUSTRIAL
PAINTING AND DECORATING
Brush — Spray

Richard H. West Co.

1331 W. Jackson Blvd.
Tel. MONroe 3192
CHICAGO 7, ILLINOIS

JAMES STEWART CORPORATION

231 So. La Salle St.
CHICAGO 4, ILL.

Specializing in
**INDUSTRIAL
ENGINEERING &
BUILDING**

We Solicit
Your Inquiries

Lasker Boiler & Engineering Corporation

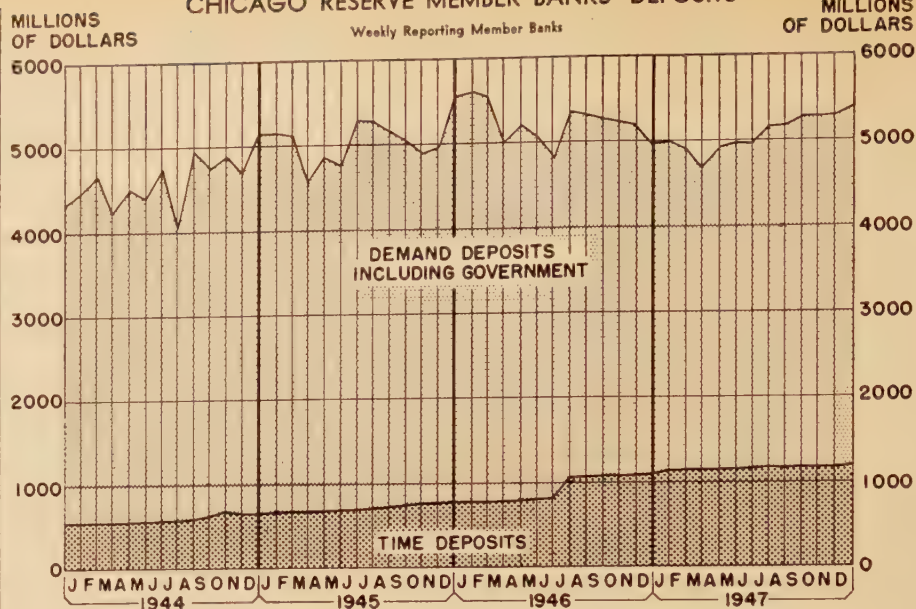
**Boilers—Tanks Stacks
Boiler Repairs**

Equipped with X-Ray Apparatus

3281 S. Wolcott Ave.,
Chicago 8

Phone LAfayette 3700

CHICAGO RESERVE MEMBER BANKS' DEPOSITS



ernment securities increased \$46,000,000 during the year to a total of \$422,000,000 on December 31. In contrast to the sharp drop in the banks' holdings of government and government guaranteed obligations in 1946, there was a small rise last year. The increase of \$8,000,000 brought the total investment of the weekly reporting federal reserve member banks in government and government guaranteed obligations to \$3,342,000,000. This arresting of the downtrend in banks' holdings of governments was principally due to a shift in policy of the federal fiscal authorities. In 1946, the budget surplus was principally used by the treasury to retire obligations held by the commercial banks. Last year, retirements were principally from obligations held by the twelve federal reserve banks and the government's own accounts, a procedure which reduced the member bank reserve deposits and therefore inclined them toward more stringent lending policies.

In response to the checking of the down trend in the banks' loan and investment in 1946 by the upward movement last year, both time and demand deposits in-

creased in 1947. The statement of the weekly reporting reserve member banks in Chicago showed a rise in demand deposits of \$305,000,000 to an aggregate of \$4,175,000,000 on December 31, from \$3,870,000,000 a year earlier. Time deposits climbed \$95,000,000 to a total of \$1,192,000,000. Despite the resumption of the upward movement last year, however, the loan and investment total and the total of deposits remained well below the war-time peak which was reached at the end of 1945.

CHICAGO BANK DEBITS

(000 omitted)

	1947	1946
January.....	\$ 7,270,026	\$ 6,607,590
February.....	6,387,837	5,685,177
March.....	8,079,357	7,386,014
April.....	6,656,613	6,619,811
May.....	7,307,505	6,641,429
June.....	8,189,979	6,476,716
July.....	7,722,659	6,889,050
August.....	6,895,007	6,421,309
September.....	7,598,147	6,337,041
October.....	8,837,808	7,152,459
November.....	7,842,355	6,793,256
December.....	9,369,527	8,094,689
Total.....	\$92,156,820	\$81,104,541

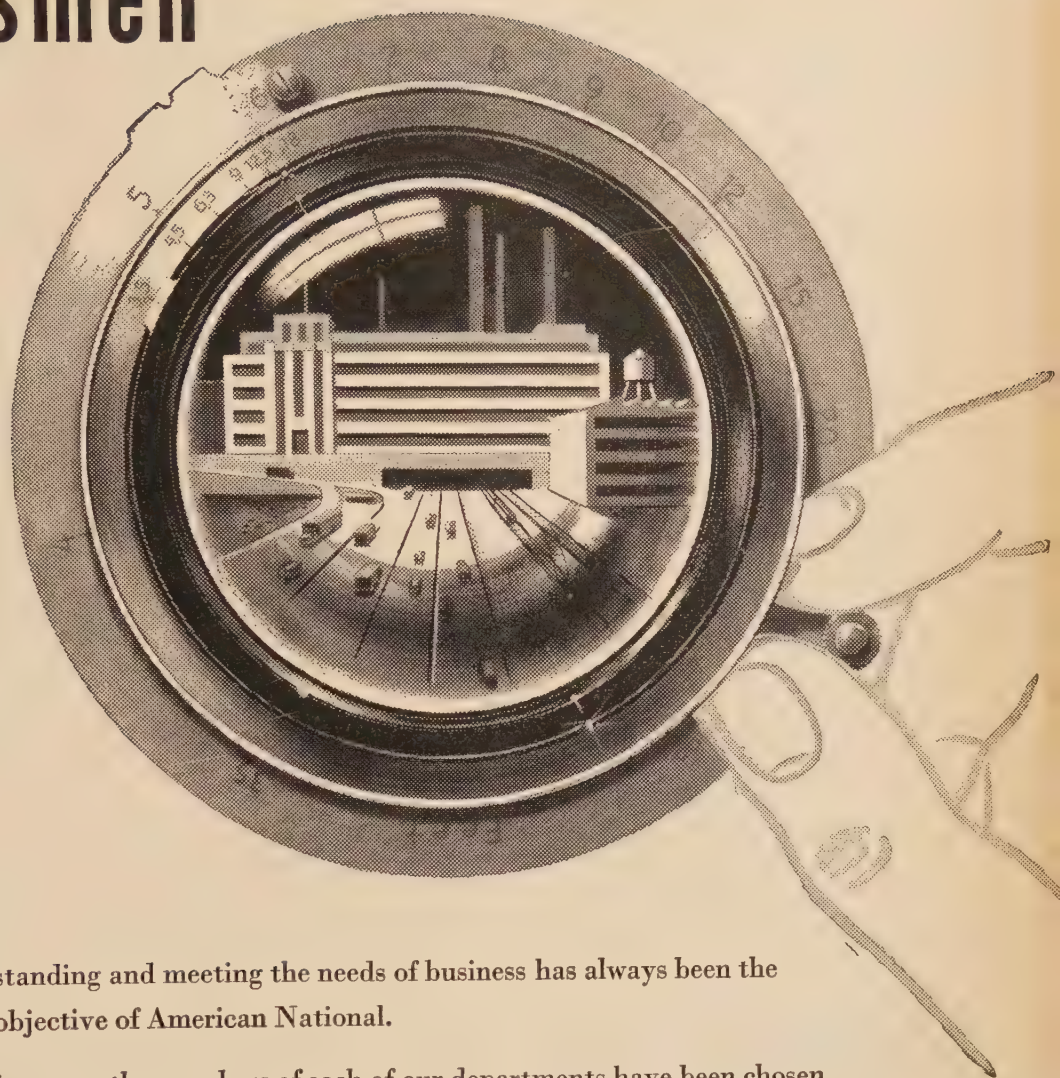
CHICAGO BANK STATISTICS

(000 omitted)

	Loans and Discounts	Total Deposits	Cash Resources	Savings Deposits
1947.....	\$2,062,473	\$8,092,443	\$2,144,955	\$1,614,992
1946.....	1,721,131	7,457,141	1,928,423	1,470,306
1945.....	1,507,900	8,597,676	1,863,589	1,270,969
1944.....	1,320,483	7,688,678	1,702,045	991,689
1943.....	1,132,624	6,419,297	1,545,359	776,315
1942.....	955,789	5,719,478	1,602,189	651,647
1941.....	1,108,252	4,584,604	1,796,297	631,690
1940.....	823,713	4,177,846	1,797,187	648,925
1939.....	676,347	3,737,402	1,629,923	618,993
1938.....	619,730	3,386,161	1,432,553	574,754
1937.....	729,313	2,978,181	1,079,365	549,980
1936.....	720,089	3,142,671	1,046,594	508,172
1935.....	534,477	2,805,902	978,374	460,341
1934.....	592,796	2,322,729	816,029	398,095
1933.....	623,746	1,790,070	681,271	314,714
1932.....	731,050	1,782,513	742,441	299,047
1931.....	1,268,271	2,140,039	508,343	469,514
1930.....	1,886,712	2,896,297	668,905	663,358
1929.....	2,106,168	2,836,274	657,993	684,976

Businessmen

like
our
point
of view



Understanding and meeting the needs of business has always been the prime objective of American National.

For this reason the members of each of our departments have been chosen carefully, not only for their ability and experience in banking, but also for their alert and understanding approach to our customers' requirements:

This genuine desire to put service *first* has proved itself in practice — providing a complete banking service for businessmen in the Chicago area:

Whether you require the convenience of a commercial or individual banking account or some other type of bank or trust service, our officers will be happy to review your requirements in a realistic and friendly manner. Why not call on us today for a thorough discussion of your particular needs?



AMERICAN NATIONAL BANK AND TRUST COMPANY OF CHICAGO

LA SALLE STREET AT WASHINGTON

Member Federal Deposit Insurance Corporation

The combined figures of all Chicago banks, as reported in the year-end bank call, showed trends paralleling those reflected in the figures of the weekly reporting federal reserve member banks. Total deposits mounted to \$8,092,443,000 from \$7,457,141,000. Of the \$635,302,000 gain, \$144,686,000 was accounted for by savings deposits, which rose to \$1,614,992,000 from \$1,470,306,000 during the year. Loans and discounts of all the banks climbed to \$2,062,473,000, a gain of \$341,342,000 from the figure at the end of 1946. Cash resources rose to \$2,144,955,000, a gain of \$116,532,000.

In contrast with the small increase shown during the year in the holdings of government obligations by the weekly reporting federal reserve member banks, the total holdings of such securities by all of Chicago's banks were down by \$29,405,000 to a total of \$3,872,297,000.

The extremely high level of the city's business activity during 1947, combined with the higher level of prices, brought a sharp increase in the turnover of bank deposits as measured by bank debits. Debits to deposit accounts, excepting interbank accounts, climbed to \$92,156,820,000 from \$81,104,541,000 in 1946.

CHICAGO STOCK EXCHANGE

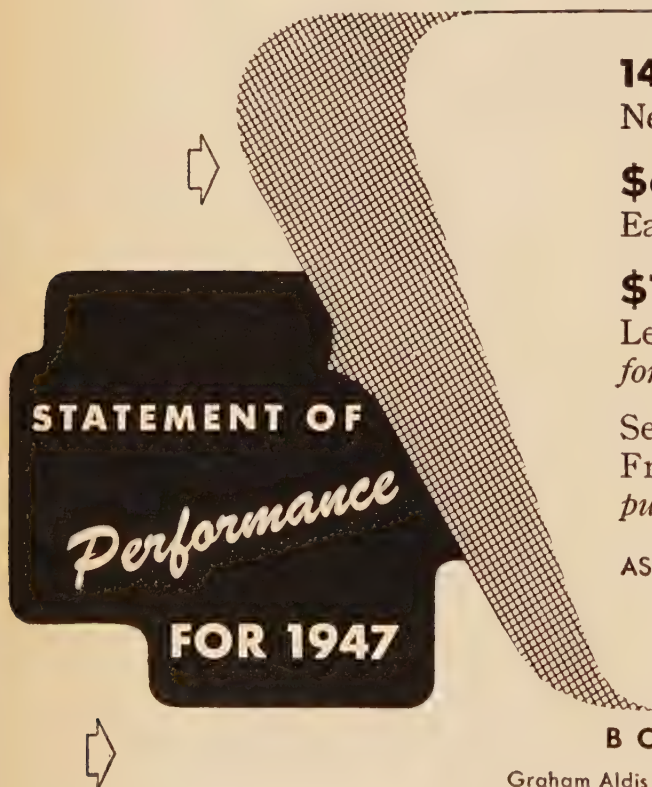
FOR YEARS the Chicago Stock Exchange, like other regional security markets, has resembled a minor league baseball circuit whose leading performers have constantly trained their sights on a major league standing. Time and again, securities made their debut on the Chicago board. There, stimulated by the enthusiasm of Midwestern investors for a Midwestern corporation, they have developed a market. Then came the eastward jump. As often as not, many a partly-seasoned security was soon sprinting to New York's "Big Board," confident the biggest exchange provided a golden market for every issue on its list.

If this assumption were correct and regional exchanges were to serve primarily as a farm-league proving ground for the New York Stock Exchange, could the outlook for minor markets be really promising? Were they not, in fact, threatened with steadily declining importance in the nation's financial structure? In digging out the answer to that question last year, the Chicago Stock Exchange,

biggest of the nation's regional markets, took a penetrating look at exactly what made its tickers tick and what the relative roles of New York's "Big Board" and its smaller colleagues scattered through the country actually were. The findings, made public last November, exploded the longstanding idea that stock listing on the big eastern exchange is always beneficial to a security issue. Getting down to brass tacks, the Chicago exchange said:

Trading Declines

Many a regional stock that prematurely leap-frogged to the "Big Board" became an extremely small frog in a very big puddle. Trading in many such issues subsequently declined sharply, drying up the liquidity essential to a good market. No more proof of the stagnation of unseasoned issues was needed than the mere fact that roughly 25 per cent of the "Big Board's" listings customarily accounted for 75 per cent of its trading volume. The obvious conclusion: many of the remaining issues would have fared better on a



14,946

New Savings Customers

\$624,388.97

Earnings Distributed to Savers

\$17,221,483.00

Lent to Veterans and Others

for reasonable purchases of homes.

Several Thousand Chicagoans Received Free Consultation *on home building or purchase in our Home Planning Center.*

ASSETS \$50,778,819.00

RESERVES \$1,974,943.00

Specializing as a Savings Association

BOARD OF DIRECTORS

Graham Aldis
Morton Bodfish
Ronald J. Chinnock

George P. Ellis
J. Frank Grimes
Henry T. Heald

George D. Kells
Henry T. Stanton
A. D. Theobald

First Federal Savings

7 SOUTH DEARBORN



PHONE ANDOVER 2711

regional exchange, especially in an area where the issuing corporation was better known.

Furthermore, the Exchange believed, a stock issue should have a sustained trading volume of at least 500,000 shares (preferably closer to 1,000,000 shares) in its primary market before contemplating dual market trading. It should also have at least 1,500,000 outstanding shares distributed among 10,000 or more stockholders. Many Midwestern issues that had jumped to the "Big Board" fell well below this requirement.

Lack Of Understanding

As the exchange saw it, the nub of the matter was simply this: Regional exchanges do play a vital role as essential security markets, but their real value is not sufficiently understood by the business community generally. Obviously then, Chicago's aspirations to a greater share of Midwestern securities business hinged upon an adequate educational campaign. James E. Day, the exchange president, summed up the problem, "Under no circumstances is our educational campaign a fight against any other stock exchange. It is simply a proposition of giving proper publicity to facts which seem to prove beyond question that stock issues of a certain size have a much better market on regional stock exchanges than they do any place else."

Thus, by the end of 1947, the Chicago exchange was well on the road toward its goal: a greater comprehension of the market's role in Midwestern business development. Officials were confident the results of their study would go a long way toward building the exchange. Among those who endorsed the survey findings were the banks of Chicago, which had shared in the business loss as stocks drifted eastward. As 1948 began, there was further evidence that the attitude adopted by the exchange was crystallizing into practical progress. Out-of-town interest in the Chicago board turned up significantly as membership applications from these sources increased.

The market survey was one phase in a broad program aimed at revitalizing the Chicago Stock Exchange. A significant second step was the adoption of a unique method of handling exchange transactions by out-of-town members. Under this "Clearing By Mail" plan, non-Chicago members were enabled to clear transactions by teletype and mail delivery of securities. Thus, they were brought into direct contact with the exchange at substantial commission savings.

By no means insignificant in the master plan for rejuvenation of the Midwestern market was the increased emphasis placed during 1947 upon practical public relations. A series of ten lectures on securities transactions, presented before capacity audiences of members of the Women's Finance Forum, plus frequent "open houses" for college and university groups, were part of this program to stimulate increased public interest and understanding of the market and its functions. The Chicago Stock Exchange—physically refurbished, incidentally, was determined to restyle the public's (and especially the businessman's) regard for regional markets in 1948 and subsequent years.

Sharp Trading Drop

A statistical appraisal of 1947, meanwhile, disclosed these facts on operations during the year: Trading on the Chicago Exchange, in common with other major exchanges, dropped off sharply last year. A total of 6,528,000 shares with a dollar volume of \$181,533,911 were traded, a decline from the 1946 level of 11,518,000 shares valued at \$336,717,772. Some 229 companies paid \$879,774,338 in dividends in 1947, compared with \$1,013,174,488 paid in 1946 by 236 companies. Member firms increased from 150 at the end of 1946 to 156 at the end of 1947; the value of seats declined from \$3250 to \$2000.

The range of prices on the Chicago Stock Exchange in 1947, the volume of trading in individual issues, and dividends paid during the year on the various stocks, are shown in the following table:

CHICAGO STOCK RANGE IN 1947

Div. Pd.	Vol.	High	Low	Close	Net Change
A					
Abbott Laboratories.....	\$ 3.25	200	76 1/4	76 1/4	-10 3/4
Acme Steel Company.....	4.25	15647	59 1/4	46	59 1/4
Adams Mfg. Co., J. D.....	.80	1510	16	14 1/2	14 1/2
Admiral Corp.....	.37 1/2	19100	10 1/4	6 3/4	7 3/4
Advance Alum. Castings Corp.....		23100	7 1/2	3 3/4	4 1/4
Aetna Ball & Roller Bearing Co.....	1.30	14700	11 1/2	9 1/2	10 3/4
Alleghany Corp.*.....		36862	5 3/4	3	3
Allied Laboratories, Inc.....	1.00	27150	27	17	26
Allied Products Corp.....	1.50	100	21 1/4	16	21 1/4
Allis-Chalmers Mfg. Co.....	1.60	500	35	35	35
Amer. Rad. & Std. San. Corp.*...	1.00	60321	17	11 1/2	14 1/2
American Rolling Mill Co.*.....	2.00	30703	37 1/2	25	32 1/2
American Tel. & Tel. Co.....	9.00	161957	174 3/4	149 7/8	151 3/8
American Tel. & Tel. Rights.....		148600	2	81 1/2	81 1/2
Anaconda Copper Mining Co.*...	3.00	61998	41 1/2	30 3/4	33 3/8
Armour & Co. (Ill.).....		193716	15 1/2	9 3/4	14
Armour & Co. (Ill.) \$6 Pr. Pfd....	31.00	50	106 1/2	106 3/4	106 1/2
Asbestos Manufacturing Co.....		57300	3 3/4	1 1/2	2
Asbestos Mfg. Co., Warrants.....		3250	1 1/4	1/128	1/128

Arthur Wagner


ELECTRIC MOTORS

and
GENERATORS

For Every Industrial Need

**M-G SETS—FANS—
PUMPS—BLOWERS**

**In Stock for Prompt
Shipment**

**ARTHUR WAGNER
COMPANY**

Electrical Engineers Since 1906

**1436 W. RANDOLPH ST.
CHICAGO 7 • MON. 7409**

**NAME PLATES
FINE METALCRAFT**

DIALS—PANELS—ESCUTCHEONS
DECORATIVE GLASS

OPERATING MECHANISMS
RADIO COMPONENTS

ETCHING
ANODIZING—ENAMELING
ASSEMBLING

CRONAME
INCORPORATED

1749 W. GRACE ST CHICAGO 13
Telephone Bittersweet 7500

KLEIN TOOLS

for
LINEMEN
ELECTRICIANS
MECHANICS



Mathias
Established 1884

KLEIN & Sons
Chicago, U.S.A.

3200 Belmont Avenue, Chicago, Illinois

MIXED LAWN GRASS SEED

— ALSO —

KENTUCKY BLUE
GRASS

RED TOP

WHITE CLOVER, ETC.

for

PARKS, CEMETERIES
GOLF COURSES, INDUS-
TRIAL PLANTS and
ESTATES

...

**J. OLIVER JOHNSON
SEED CO.**

940-960 W. HURON ST., CHICAGO 22

PHONE MONROE 6580

	Div. Pd.	Vol.	High	Low	Close	Net Change
Associates Invest. Co., (New)....	\$.90	120	33	30 1/2	33	+ 8
Associates Invest. Co., (Old)....	1.00	40	63	62	63	+ 3 1/2
Athey Products Corp.....	.50	18350	13 1/2	6 1/4	7 1/2	+ 1 1/2
Automatic Washer Co.....	.25	26450	5 3/4	3 1/4	4	+ 1 1/4
Avco Mfg. Corp.....	.10	57156	7 1/2	4 3/8	4 3/8	+ 1
B						
Barber Co., W. H.....	1.50	820	26 1/2	24 3/4	25 1/2	+ 3 1/2
Barlow & Seelig Mfg. Co., "A"....	1.20	1650	20	16	16 1/2	+ 1 1/2
Bastian-Blessing Co., The.....	3.00	10400	39 1/4	28	37 1/2	+ 1 1/4
Belden Manufacturing Co.....	1.20	17200	23 1/8	18 1/2	20	+ 16 3/4
Belden Mfg. Rights.....		50000	1	13 1/16	15 1/16	+ 1 1/2
Bendix Aviation Corp.....	2.00	50	35 1/2	35 1/2	35 1/2	+ 1 1/2
Berghoff Brewing Corp.....	1.25	18250	14 3/4	12 1/2	12 1/2	+ 3 1/2
Bethlehem Steel Corp.*.....	6.00	3067	105 1/4	96 1/2	103 1/2	+ 2 1/2
Binks Manufacturing Co.....	1.20	23950	17 3/4	11 3/8	12 1/2	+ 1
Bliss & Laughlin, Inc.....	1.75	5166	18 3/8	14 1/8	17 1/8	+ 1
Borg Corp., George W.....	.80	26950	13 1/4	9 5/8	11	+ 10 3/8
Borg-Warner Corporation.....	2.05	24486	55	38 5/8	54 1/8	+ 20
Brach & Sons, E. J.....	4.00	14250	62	40	60	+ 1
Bruce Co., E. L.....	1.75	4900	50	32	46	+ 3 3/8
Burd Piston Ring Co.....	1.00	14150	16 1/2	10 3/4	14 1/2	+ 1 1/2
Burton-Dixie Corporation.....	1.50	7600	21	16 3/4	17 1/2	+ 10 3/4
Butler Bros.....	.65	49493	24 1/4	10 7/8	12 5/8	+ 12 5/8
C						
Carr-Consolidated Biscuit Co.....	.75	43300	20	4 7/8	6	+ 3 1/2
Castle & Co., A. M.....	3.50	4600	42	30	33 1/2	+ 5
Central & Southwest Corp. (New)....	.35	138065	12	8 3/4	9 1/4	+ 1 1/2
Central & So. West Util. (Old)....		24685	9 3/8	7 3/4	9 1/4	+ 22
Central & So. West Util. Pr. Pfd..	1.51 3/4	460	119 1/2	116 1/2	118 1/2	+ 1 1/2
Central & So. West Util. Pfd.....	103.01 3/4	7270	222 1/2	192	222	+ 1 1/2
Central-Illinois Sec. Corp.....		15100	2 3/8	1 1/4	1 1/4	+ 3 1/2
Cent. Ill. Sec. Corp., \$1.50 Conv. Pfd..	.75	7700	15 1/2	11 1/2	11 1/2	+ 1 1/2
Central States P. & L. Corp., Pfd..		4230	8 1/2	7 3/8	8 1/4	+ 3 1/2
Certain-Teed Products Corp.*.....	.60	25016	21 1/4	12 1/2	16 1/4	+ 4
Cherry-Burrell Corp.....	1.20	6950	26	19 1/2	25	+ 3 1/2
Chicago & Southern Airlines, Inc.....		53600	9 1/4	4 3/8	4 3/8	+ 3 1/2
Chicago Corporation, The.....	.45	101543	12 3/8	6 1/2	12 1/4	+ 1 1/2
Chicago Corporation, The, Pfd....	3.00	12950	65 1/4	60 1/2	64 1/2	+ 13
Chicago Electric Mfg. Co., "A"....	3.00	2270	33 1/2	22	33	+ 7 1/8
Chgo. Milw. St. Paul & Pac. Ry.....		20313	12 3/8	6 7/8	8 1/4	+ 10 3/4
Chgo. & N. W. Ry. Co., 5% Pfd..	5.00	200	35 3/4	35 5/8	35 3/4	+ 5 1/2
Chicago Towel Company.....	5.00	2330	85	68	70	+ 1 1/2
Chicago Towel Company, Pfd....	7.00	206	117	111 1/4	111 1/4	+ 24 5/8
Chrysler Corporation (New).....	1.75	37043	66 3/4	56 3/8	63 3/4	+ 11 3/4
Chrysler Corp., (Old).....	2.25	29637	116	85 1/4	116	+ 1 1/2
Cities Service Company.....	1.50	34873	41	24 1/4	38 5/8	+ 17 1/8
Club Aluminum Prod. Corp.....	.50	2450	9 1/4	2 1/2	7 1/2	+ 1 1/2
Coleman Co., Inc.....	1.25	12800	39	22 1/2	38 7/8	+ 6 7/8
Columbia Gas & Elec. Corp.*.....	.75	39767	12 3/8	10	12	+ 2 1/2
Commonwealth Edison Co.....	1.40	319622	33 3/4	25 1/8	27	+ 11 5/8
Consumers Company, Common....		3610	29	24 3/4	26 1/4	+ 3 1/2
Consumers Company, Pfd.....	1.87 1/2	1540	41	35	37	+ 2 1/2
Continental Motors Corp.*.....		26419	12 3/4	6 5/8	7 7/8	+ 11 5/8
Crane Company.....	2.60	50	34 3/8	34 7/8	34 7/8	+ 7
Curtis Lighting, Inc.....		260	8 1/2	6 1/4	7	+ 1 3/8
Curtiss-Wright Corp.*.....	.25	32858	6 3/8	4	4 1/4	+ 2 3/4
D						
Dodge Mfg. Co.....	.75	20300	13 3/4	9	9	+ 3 5/8
Doehler-Jarvis Corp.....	1.62 1/2	19837	39 3/8	29 1/8	38 1/2	+ 2 3/4
Domestic Credit Corp., "A" Com..		47750	4 3/8	2 3/4	3	+ 12 1/2
E						
Eddy Paper Corp., The.....	15.00	1639	113	81	96 1/2	+ 1 1/2
Elgin National Watch Co.....	1.10	4250	26 1/2	16 5/8	17 1/2	+ 1 3/4
Eversharp, Inc.....	1.80+	300	14 1/8	12	12	+ 12 1/2
F						
Farnsworth Tele. & Radio Corp.*..		10042	8 5/8	5	6 7/8	+ 1 1/2
Fitz Simons & Connell D. & D. Co.	.50	4650	12 3/4	8 7/8	9 1/2	+ 2 3/4
Flour Mills of Amer., Inc.....	.90	61300	19 1/2	13 3/4	16 1/2	+ 9 1/2
Four Wheel Drive Auto Co.....	.60	13400	11 3/8	9 1/8	9 1/2	+ 10 1/2
Fox Brewing Co., Peter.....	1.50	12300	31	17	19 1/4	+ 8
G						
General American Trans. Corp....	2.75	7184	58	48 3/8	57 7/8	+ 1 1/2
General Candy Corp.....	1.00	2910	20 1/4	17 3/8	18 3/4	+ 1 1/2
General Electric Company*.....	1.60	87171	39 3/8	32	35 5/8	+ 2 3/4
General Finance Corp.....	.20	5350	9 3/8	6 1/2	7	+ 3 1/2
Gen. Finance Corp., 5% Pfd. "A"....	.50	750	9	7 5/8	7 7/8	+ 3 1/2
General Motors Corp.....	3.00	126798	65 3/4	52	58 1/8	+ 5 3/4
Gibson Refrigerator Co.....	.85	65450	9 7/8	6 3/4	8 1/2	+ 3 1/2
Gillette Safety Razor Co.....	2.37 1/2	28433	35	23 5/8	35 1/4	+ 1 1/2
Goldblatt Bros., Inc.....		6500	16	9 1/4	9 1/4	+ 2 3/4
Goodyear Tire & Rubber Co.....	4.00	20607	61 1/8	41 1/4	43 1/4	+ 1 1/2
Gossard Co., The H. W.....	1.75	12600	22	16 1/4	19 1/2	+ 2
Graham-Paige Motors Corp.*.....		85158	8 1/8	2 7/8	5 3/4	+ 5 1/2
Great Lakes Dredge & Dock.....	1.00	44000	20	15 3/4	16 1/8	+ 1 1/2
H						
Hall Printing Co., W. F.....	1.25	400	17	14 1/2	14 1/2	+ 2 3/4
Hammond Instrument Co.....	.70	27450	12 3/4	9 1/8	11 3/8	+ 1 1/2
Harnischfeger Corporation.....	1.15	8500	25	17	23 3/8	+ 1 1/2
Heileman Brewing Co., G.....	3.00	29050	29	19 1/4	24	+ 1 3/4
Hein-Werner Corp., (New).....	1.10	18350	15	8 1/2	8 1/2	+ 2
Hein-Werner Corp., (Old).....	1 Share Stock	3750	34	27 1/2	30	+ 5 1/4
Hibbard, Spencer, Bartlett & Co...	3.60	3430	70	56	63	+ 2 3/4
Horder's, Inc.....	1.50	1820	24	20	21 1/4	+ 1 1/2
Hormel & Co., George A.....	6.00	360	42	37	41 3/8	+ 1 1/2
Houdaille-Hershey Corp.....	1.00	100	17 1/2	17 1/2	17 1/2	+ 7 3/4
Hubbell, Harvey, Inc.....	4.80	150	35	29	35	+ 2
Hupp Corporation.....		12363	7 1/2	3 7/8	4 1/8	+ 4 1/2
I						
Illinois Brick Company.....		16850	17 1/2	11 1/8	12 1/2	+ 6 1/2
Illinois Central R. R. Co.....		29759	31 5/8	18 1/2	31 5/8	+ 2 1/4
Ind. Pneumatic Tool Co., STC....	1.60	22450	25	19	20 1/4	+ 7 1/2
Indiana Steel Products Co.....	.60	19800	18	6 3/4	7 3/4	

	Div. Pd.	Vol.	High	Low	Close	Net Change
Ind. Steel Prod. Stock Pur. War...		2056	8 3/4	2	2	— 5 1/2
Indianapolis Power & Light Co. \$ 1.52 1/2		2901	23 3/8	21 1/2	21 3/8	— 6 1/4
Indianapolis Power & Light Rights		17100	1 1/8	1 1/8	1 1/8	—
Interstate Power Co., \$6 Pfd.		4460	24 3/4	5	5	—19
Interstate Power Co., \$7 Pfd.		100	8 1/2	7 1/2	8 1/8	—24 1/2
J						
Jim Brown Stores, Inc., (New)...		850	6 3/4	4 3/4	4 3/4	—
Jim Brown Stores, Inc., Pfd. (New) .51		440	5	4 1/4	4 1/4	—
Jim Brown Stores (Old).....		9150	6 1/4	1 1/8	2 1/4	— 4 3/4
Jim Brown Stores "A" Pfd. (New).....		3440	15	8	9 1/8	— 7 3/8
K						
Katz Drug Company.....	.50	22600	16	11 1/2	14 1/2	+ 1 1/2
Kellogg Switchb'd. & Sup. Co. .15		34050	10	6 1/2	7 1/2	— 2 1/2
Kellogg Switchb'd. & Sup., 5% Cum. Pfd.....	5.00	180	97 1/4	90	90	— 2
Kentucky Util. Co., Jr., Pfd.....	3.68	1540	56 1/2	53 3/8	55	— 1 1/2
Kentucky Util. Co., 6% Pfd.....	6.82	527	111	107	109 1/4	— 1 1/2
L						
Laclede Gas Light Co., The*.....	.20	32587	6 3/4	4 3/4	4 3/4	— 1 3/4
LaSalle Extension University.....	.50	14750	7 1/4	5 1/8	6 7/8	— 3 3/8
Leath & Company.....	3.50	9450	29	17	18 5/8	— 7 3/8
Leath & Company, Pfd.....	2.50	450	48 1/2	38	41	— 5 1/2
Libby, McNeill & Libby.....	.60	103073	11	8 1/8	9	— 1 1/4
Lincoln Printing Company.....	2.00	9800	25	16	21	— 1 1/2
Lincoln Printing Co., \$3.50 Div. Pfd.	3.50	110	53	51 1/4	51 3/4	— 2 1/4
Lindsay Light & Chemical Co.....	2.40	16150	47 1/2	26 1/4	44 1/2	+18 1/2
Lindsay Light & Chemical Co., Pfd.	.70	60	15 3/4	14 1/2	14 1/2	— 2
Line Material Company.....	.15†	600	18	16	16	— 4 3/4
M						
Mandel Bros., Inc.....		100	9 5/8	9 5/8	9 5/8	— 3
Mapes Consolidated Mfg. Co.....	3.00	200	53	39 3/8	39 3/8	—17 5/8
Marshall Field & Company.....	2.00	77837	34 3/4	22	24 3/8	— 7 1/8
Marshall Field & Co., 4 1/4 % Pfd.	4.25	290	110 1/4	99 1/2	99 1/2	—11 1/2
Mickelberry's Food Prod. Co.....	.75	9100	30	10	12	—19
Middle West Corp., The (New)...	.25	74108	16 3/4	13 3/8	15 3/8	—
Middle West Corp. (Old).....	†	60528	24 3/4	19 3/8	24	+ 2 1/8
Miller & Hart, Inc., VTC.....	.50	153600	13 1/2	8 5/8	10	—
Miller & Hart, Inc., Prior Pfd.....	1.00	13500	16 1/2	13 3/4	14 3/4	— 2 1/2
Minneapolis Brewing Co.....	1.75	1970	19 1/2	16	18 1/2	—
Modine Mfg. Co.....	2.00	14100	23 3/4	16 1/2	22 3/4	+ 4 1/4
Monroe Chemical Co.....	.50	2250	8 3/4	4 1/2	4 1/2	— 4 1/4
Monroe Chemical Co., Pfd.....	3.50	720	56	47 1/4	48	— 6 1/2
Montgomery Ward & Co.....	3.00	57676	64 3/4	48 3/8	53 3/8	— 6 3/8
Muskegon Motor Spec. Co., "A".....	2.00	970	31 1/2	28	29 1/2	+ 1 1/2
N						
Nash-Kelvinator Corp.*.....	1.10	61108	19 1/2	13 3/8	18 1/8	+ 4 1/8
National Cylinder Gas Co.....	.80†	50	13 3/8	13 3/8	13 3/8	— 3 1/8
National Pressure Cooker Co.....	2.39 1/2	850	38	28	38	— 1
National-Standard Co.....	2.30†	9700	48	34 1/8	35 1/2	— 4 1/2
New York Central R. R. Co., The*		57484	22 1/2	11 7/8	14 1/4	— 3 3/4
Noblitt-Sparks Ind., Inc. (New)...	.40	400	25 1/2	23 7/8	24 3/8	—
Noblitt-Sparks Ind., (Old).....	1.50	500	47 3/4	41	47 7/8	+14 7/8
North American Car Corp.....	2.30	9400	32 3/4	26	28	+ 1 1/4
North American Car, The*.....	.50†	16807	33 3/8	16 1/4	17	—14 3/8
Northern Illinois Corp.....	.50	4300	15	8 3/8	9	— 7
Northwest Bancorporation.....	1.00	21450	26 3/4	21	21 1/2	— 1 1/2
North West Util. Co., 7 % Pfd.....		5320	180	144	145 1/2	—14 1/2
North West Util. Co., 7 % Pr. Lien.		1440	190	165	165	—10
Nunn-Bush Shoe Co.....	.80	670	23	16 1/4	16 1/4	— 5 3/4
O						
Oak Manufacturing Co.....	.75	95150	10 1/4	7 1/4	8 3/4	+ 1
Ontario Mfg. Co.....	1.00	610	20	18	20	— 1
P						
Packard Motor Car Co.*.....	.15	124117	7 3/8	4 1/2	4 5/8	— 1 1/2
Pan American Airways Corp.*.....	.25	41900	14 3/4	8 1/4	8 1/2	— 4
Paramount Pictures, Inc.*.....	2.00	36617	32 3/8	19 3/4	21 3/8	—11 1/2
Parker Pen Company, The.....	3.50	2550	50	26	26	—13
Peabody Coal Co., "B" Com.....		114900	9 1/4	5 1/4	6 3/8	— 2 3/8
Peabody Coal Co., 6 % Pfd.....	9.50	11470	110	93	102 1/2	— 6
Penn Electric Switch Co., "A".....	1.20	4250	24 1/2	20 3/8	21 3/8	— 3/4
Pennsylvania R. R. Co.....	.50	152092	27	15 3/8	18 1/4	— 7 3/8
Peoples Gas Light & Coke Co.....	5.37 1/2	570	93 3/4	86 3/4	87 1/2	—22 1/2
Pepsi-Cola Company*.....	.95	29651	34 1/8	22 3/4	23 3/4	— 2
Perfect Circle Corp., (New).....	.60	5370	14	11	11 1/4	—
Perfect Circle Co., (Old).....	.50	270	55	40 1/2	54	+13 1/2
Poor & Company, "B".....	1.50	100	13 3/4	13 3/4	13 3/4	— 7 3/4
Potter Company, The.....	.30	9800	6	4 3/8	6	+ 3/4
Pressed Steel Car Co., Inc.....		6642	16	9 1/2	10 3/8	— 3 1/8
Process Corporation, The.....		860	6 1/4	5	5	— 2
Public Service of Colorado.....	1.65	2546	38 3/8	32 1/2	32 1/2	— 5 1/2
Pure Oil Co., The*.....	1.50	34086	29 3/8	24 1/2	29 3/8	+ 5 3/8
Q						
Quaker Oats Company, The.....	4.50	1240	94 1/2	85	87 3/4	— 5 3/4
R						
Radio Corporation of America*....	.20	59623	10 3/8	7 1/2	9 3/8	+ 1 1/2
Radio-Keith-Orpheum Corp.*.....	1.20	35809	15 3/8	8 1/2	8 1/2	— 7
Rath Packing Co., The.....	1.75	8260	32	28	31	+ 2 1/2
Reliance Mfg. Co.....	1.00	100	10 3/8	10 3/8	10 3/8	—15 1/2
Republic Steel Corp.*.....	2.00	56898	30 3/8	25	26 3/8	— 1 1/2
S						
St. Louis Nat'l. Stockyards Co....	1.00	7830	38	28 1/4	28 1/4	— 2 1/2
Sangamo Electric Co.....	2.20	11950	20 1/2	22 1/4	29	+ 3 3/8
Schwitzer-Cummins Co.....	1.50	4500	18 1/2	12	15	— 1
Sears, Roebuck & Company.....	1.75	119708	40 1/2	30	38	— 5 3/8
Serrick Corp., The, "B".....	1.60	16600	12 1/2	8 3/4	12	+ 3
Shellmar Products Corp.....	1.00	59500	35	24 1/4	32 1/2	+ 4
Signode Steel Strapping Co.....	.75	16300	15 1/4	10	13 3/4	+ 2
Sinclair Oil Corporation.....	1.00	91921	18	14	18 1/2	+ 2 3/8
Society Brand Clothes, Inc.....	.60	17300	9 1/4	6 1/2	7 3/4	—
Socony-Vacuum Oil Co., Inc.*.....	1.00	157468	17 1/4	13 3/8	17 3/8	+ 2 3/8

OFFICE SUPPLIES

**"ORDER
from
HORDER"**

For your
convenience
8
DOWNTOWN
STORES

- 101 W. Washington St.
- 111 W. Adams St.
- 184 N. Wabash Ave.
- 60 E. Adams St.
- 149 E. Ohio St.
- Merchandise Mart
- 225 S. Jefferson St.
- 324 S. Dearborn St.

Office Furniture Store
111 W. Adams St.

Save time, save money. Visit
your nearest Horder store
when you need office sup-
plies. Full assortments. Sound
values. Efficient service.

HORDER'S, INC.

FOUNDED 1901

231 S. Jefferson St., Chicago 6

All Telephones
FRanklin 6760

**SERVICE TO THE
PROFESSION**

Whether individual, trust,
or corporation title is de-
sired—Whether payments
are fixed or sliding—we
will try to fit the mortgage
to your best interests.

**LAKE MICHIGAN
MORTGAGE CO.**

NEWTON S. NOBLE, JR.
FLETCHER SEYMOUR

103 S. LA SALLE STREET
CHICAGO • CENTRAL 2545

TRANSFORMERS AND REACTORS

FOR INDUSTRIAL AND
ELECTRONIC APPLICATIONS

- POWER PACKS • AMPLIFIERS
- TRANSMITTERS

**STANDARD
TRANSFORMER
CORPORATION**

ELSTON, KEDZIE & ADDISON
CHICAGO 18, ILLINOIS
Phone INdependence 7400



Strom BALLS

For Every Need

4 Standard Grades Of Chrome Alloy
Steel Balls With Guaranteed Accuracy

Non-corrosive Balls such as Brass,
Bronze and Stainless Steel are avail-
able in sizes from 1/8" to 4 1/2" in diameter.

STROM STEEL BALL CO.

1850 S. 54th Ave. Cicero, Illinois
Lawndale 6760

	Div. Pd.	Vol.	High	Low	Close	Net Change
South Bend Lathe Works	\$3.40	15,000	34 1/2	23 1/2	27	— 3 3/4
South Coast Corp., The .....	.10	350	5 1/2	4 1/4	5	— 1 1/2
Spiegel, Inc.		65891	17 1/2	8 1/2	9 1/4	— 6 3/8
Standard Dredging Corp.		19950	4 3/8	3	3	— 1
Standard Dredging Corp., Pfd.	1.60	3120	21	17 3/4	19	— 1
Standard Forgings Corp. ....	.80	5100	13 3/8	9 1/2	9 1/2	— 1
Standard Oil Co. (Ind.)	2.00	67704	44 3/8	37 1/2	43	+ 2
Standard Oil Co. (N. J.)*	4.00	46126	80 1/2	63 1/2	79 1/2	+10 1/4
Standard Steel Spring Co.* .....	.50	12527	17	10 3/4	14 1/2	+ 1 1/4
Stein & Company, A.	2.35	430	24 3/4	24	24 3/4	— 3
Stewart-Warner Corp.	1.00	18074	19 1/2	13 3/8	14 1/2	— 3 3/4
Stone Container Corp. ....	.60	8850	10 1/2	8 1/2	8 3/8	— 1 3/8
Storkline Furniture Corp.	1.00	4250	22	15 3/8	17 3/8	— 1 3/8
Studebaker Corporation, The* .....	.50	45999	24 3/4	16 1/2	21	+ 3/4
Sunbeam Corporation.	2.00	6150	34 3/4	26 1/4	31	+ 1 3/8
Sundstrand Machine Tool Co.	2.00	25300	26 3/4	16	24 1/4	+ 1 3/4
Sunray Oil Corporation* .....	.50†	123515	12 1/2	7 3/4	11 1/2	+ 3 3/8
Swift & Company.	2.10	77688	38	30 1/2	34	+ 1 1/2
Swift International.	1.60	22286	26 3/8	20 3/8	21	— 5 3/8
Swift International Rights.		46200	1 3/4	7/8	1 1/4	
T						
Texas Co.	3.00	19564	61 3/4	53 3/4	59 3/4	+ 1
Texas Co., Rights.		70688	2 3/8	1 3/4	2 1/8	
Thompson Co., John R. ....	.90	100	14 3/4	14 3/4	14 3/4	— 2 3/4
Thor Corporation. ....	.50	62750	25 1/2	14	21 3/4	+ 2 3/4
Trane Company, The.	2.00	41100	37	21	36 1/4	+ 8 1/2
208 South LaSalle St. Corp.	2.50	7410	54	45	47 1/4	— 3 1/4
U						
Union Carbide & Carbon Corp.	3.75	23456	110 1/8	89 3/8	103 1/8	+ 7 3/4
United Airline Rights.		22000	1 3/2	3/4	3/2	
United Corporation, The*		44659	4 1/4	2 1/4	2 1/4	— 1 1/4
U. S. Gypsum Co.	4.00	50	104 1/2	104 1/2	104 1/2	+15 1/2
U. S. Gypsum Rights.		450	11	11	11	
U. S. Steel Corporation.	5.00	96022	79 3/8	61 3/8	78 3/8	+ 6 3/8
W						
Walgreen Company.	1.85	300	33 3/4	31	31	—10 3/4
Westinghouse Elec. Corp.	1.25	43689	30 3/4	22 1/2	30 1/2	+ 5 1/2
Wieboldt Stores, Inc.	1.20	6650	23 3/8	14 3/8	14 3/8	— 8 7/8
Wieboldt Stores, Inc., \$4.25 Pfd.	4.25	610	101	98	98 3/8	— 2 3/8
Wilson & Company, Inc.* .....	.95	16098	16 3/8	10 3/4	14 3/8	+ 3/8
Wisconsin Bankshares Corp. ....	.50	57000	13 1/2	10 1/2	10 3/8	— 2 1/8
Woodall Industries, Inc.	1.25	12100	16 1/2	11	13 3/4	— 1 1/4
Wrigley Jr. Company, Wm.	3.00	200	66	66	66	— 1 1/4
Y						
Yates-American Machine Co.	1.00	27900	15 3/8	9 1/4	14 3/8	+ 3 3/8

BOND SALES

Fairbanks Morse 2 3/4 % Debentures	21000	99 1/2	96 1/2	96 1/2
------------------------------------	-------	--------	--------	--------

*Admitted to unlisted trading privileges under Sec. 12(f) of the S. E. C. Act of 1934.
†Plus stock.

**ONE WORD
REVIEWS MY
BUSINESS!**



Quality

© Borden Co.

"AND THAT WORD," says Elsie, the Borden Cow, "is quality!"

Elsie knows whereof she speaks! For 91 years The Borden Company has faithfully *developed* and *protected* the quality of its products. *Quality*

Control safeguards the production, processing, and distribution of every product bearing the Borden name—the greatest name in milk!

Thus it is that, in reviewing our business, we point with pride to the fact that . . . "If It's Borden's, It's Got To Be Good!"

THE BORDEN COMPANY, CHICAGO MILK DIVISION

SAVINGS AND LOAN

THE active housing market and continued gains in the volume of investment capital were again reflected in the growth in mortgage loans and share capital of savings and loan associations in 1947. The number of federal and insured state associations was unchanged from 1946, but there was one less uninsured state association in 1947 due to a merger.

Total mortgage loans of 122 insured state and federal member associations of the Federal Home Loan Bank of Chicago in Cook County rose to \$436,586,257 at the end of 1947, from \$343,143,512 at the end of 1946 and \$245,198,920 at the close of 1945. Combined assets of these associations stood at \$556,268,351 at the year end as compared with \$464,133,009 at the end of 1946 and \$377,060,541 on December 31, 1945. Total private share investments of \$448,673,707 compared with \$374,840,035 and \$306,223,263 for the two preceding years.

December 31	1947	1946
Federal Associations		
Number of Associations	50	50
Mortgage Loans.....	\$248,948,526	\$197,688,756
Share Capital.	260,428,539	217,467,495
Total Assets..	322,700,316	272,567,269

Insured State Associations		
Number of Associations	72	72
Mortgage Loans.....	\$187,637,731	\$145,454,756
Share Capital.	188,245,168	157,372,540
Total Assets..	233,568,035	191,565,740

Total assets of 51 non-insured Cook County savings and loan associations increased to \$27,472,787 as of December 31, 1947, from \$22,619,433 for 52 associations at the end of 1946.

Trends in Finance

(Continued from page 10)

such as automobiles, house furnishings and appliances." In other words, our great American pastime of "keeping up with the Joneses" has not lost its appeal in these inflationary days, despite its inroads upon "rainy day" preparations.

« « » »

Forecasters

See No Slump

Immediately

These are difficult times for professional business forecasters.

Life has become especially trying for those prophets quartered in Washington to whom, supposedly, the answers to our more baffling economic questions are privately imparted by obscure but nonetheless omniscient agents of the federal government. In the recent unsettled economic period, one statement that must have upset the equilibrium prevailing among Washington forecasters was the acknowledgment by one federal official that a Chicago trader had outshone his ablest "inside"

GOOD TOOLS PRODUCE GOOD WORK

Distributors of

NATIONAL TWIST DRILLS
WINTER BROS. TAPS
DELTA FILES
BARNES HACK SAWS
BROWN & SHARPE TOOLS
STARRETT TOOLS
WILLIAMS WRENCHES
BLACK & DECKER TOOLS
CHISHOLM MOORE HOISTS
HOLO-KROME SCREWS
NORTON GRINDING WHEELS
CERRO dePASCO PRODUCTS
MORGAN VISES
NICHOLSON FILES

Every Need for Every Shop

STERLING PRODUCTS CO., INC.

Machinist's Tools and Supplies

Moline
1524 Third Ave.
Moline 1024

Chicago 6, Illinois
121 N. Jefferson St.
State 1126

These 2 Books Are All You Need



To Safeguard Your Buying Of Steel and Stainless Steel

CHICAGO STEEL SERVICE COMPANY

ASHLAND AVE. AT 39TH ST.
CHICAGO 9.

The House of Stainless

TELEPHONE. LAFAYETTE 7210
ILLINOIS



**A Complete Line of Portable Electric Tools
for SAWING ... SANDING ...**

**DRILLING ... GRINDING or CUTTING
WOOD, METAL MASONRY PRODUCTS
or COMPOSITIONS**

**PLUS ... PNEUMATIC TOOLS
for DRILLING, GRINDING,
RUNNING NUTS or DRIVING SCREWS**

Made by SKILSAW, INC.
5033 Elston Ave., Chicago 30, Ill.

Factory Branches in Principal Cities . . .
Chicago Downtown Branch, 330 So. Jefferson St.

THE THREE LODGE BROTHERS

Your factory is their meeting place, your machinery is the place they lodge ... the place where they do damage, where they release their powers of destruction. You know them as *Dirt, Dust and Grit* ... and you can rout them out quickly, completely, with the easy-to-use portable electric CLEMENTS-CADILLAC CLEANING TOOL.

EVERY FACTORY
NEEDS GOOD
CLEANING TOOLS
- CADILLAC WILL
PROVE BEST

This Powerful
Combination
**BLOWER and
SUCTION CLEANER**
blasts damaging dirt and
dust from hard-to-get-at
places . . .

TIME-SAVING • EASY-TO-USE
CLEMENTS

CADILLAC

portable electric
CLEANING TOOLS

Will save your equipment

Manufactured by
CLEMENTS MFG. CO.

W. J. CLEMENTS, Pres.
6626 S. NARRAGANSETT AVE.
CHICAGO 38, ILL.

ASK YOUR MILL SUPPLY DEALER OR WRITE US FOR COMPLETE DATA



forecasters in predicting the grain market break.

Hindsight being the next best thing to foresight, however, the professional forecasters have hastened to interpret the violent fluctuations within the major markets. The consensus of their forecasts is that the recent downward trend is not immediately alarming and does not foreshadow an important recession or depression right now. Perhaps such will materialize later in the year, they believe, possibly in midsummer, possibly in late summer, possibly in early fall, possibly by Christmas, or possibly later.

« « » »

Long-Range

Farm Market

Strength Seen

Economists, endeavoring to determine how long the farm market will retain the prosperous condition it now enjoys, have found one significant trend which supports the belief that relative farm prosperity will continue well into the future. It is the statistical discovery that, although farms are declining in number, individually they are larger.

This is an important fact to remember, the Institute of Life Insurance points out, because it provides one more indication of the long-term financial well-being and security of the average farm family. A 1945 government survey showed an average of 195 acres for all the nation's farms. This was 20 acres above 1935 average and the highest recorded since 1860.

Several factors underly this growth in farm size, according to the institute. Farm population has been moving to the cities, more farm work must be done by fewer hands, hence mechanization of agriculture has moved forward swiftly, requiring a larger capital investment by individual farmers. As in industry, farm costs drop and profits rise as mechanization increases production on a bigger acreage.

Even the recent commodities market break failed to dampen the enthusiasm of most farmers for further mechanization. Although the decline in grain prices dropped the income expectancy of farmers, their financial stability was again emphasized in the fact that few held back on buying plans and farm equipment manufacturers found demand as high as ever.

« « » »

Railroad

Electrification

Standardized

In the competition between coal, oil, and electricity as basic sources of railroad motive power, diesel oil has in recent years made substantial progress over its nearest competitors. Now, however, there are indications that the relative position of electricity may be improved. This is the

belief of two Westinghouse Electric Corporation engineers who have devised a plan for constructing "packaged" electric locomotives by merely assembling identical power units in building-block style.

The Westinghouse men believe "complete standardization of mechanical and electric parts would make this type of locomotive the cheapest to build and operate, and more powerful for its weight than any now on the rails." Though economical, electrification has not been widely adopted because of its high installation costs. But, since 40 per cent of this initial cost goes into the electric locomotives themselves, this investment could be considerably reduced if all basic parts—wheels, trucks, and electric motors—were standardized.

Thus, the idea is to construct as a basic unit a four-wheeled truck carrying two electric motors of 469 horsepower each. For a switch engine a single cab would fit over two such trucks; for larger locomotives, the number of trucks would be increased and the cab lengthened to the point where a maximum rail horsepower of 10,000 was attained.

"Packaged" electric locomotives, the Westinghouse men feel, would require a minimum of idle time, servicing would be greatly simplified, and maintenance costs would be cut down substantially.

« « » »

Trucking Employs	One out of every
Every Tenth	10 gainfully em-
U. S. Wage-earner	ployed persons in
	the U. S. derives his
	income from the

trucking industry.

This fact, gleaned in a recent survey, points up the tremendous expansion of the nation's motor carriers, who now employ three times the personnel of all other transportation fields combined.

In 1947, truck manufacturers produced a record total of 1,225,000 vehicles—32 per cent over the previous high set in 1946. In wholesale value, 1947 output was nearly \$1,700,000,000—two and one-half times the pre-war peak. About 6,500,000 trucks are registered in the U. S. today, against 4,834,000 in 1941. Farmers, alone, own over 2,000,000 trucks.

Commercial truck drivers number about 5,350,000—making them the nation's biggest occupational group outside of agriculture. Some 400,000 workers are employed in truck production, 175,000 in sales and servicing, 180,000 in processing and handling petroleum products for the trade, and 133,000 in producing raw materials used in truck manufacture.

And, the next time you're stalled behind a lumbering highway goliath, ponder this: Truck owners paid about \$885,000,000 in special taxes last year, or 30 per cent of the \$2,900,000,000 in motor vehicle taxes collected by federal, state and local agencies.

Service	Experience	Equipment	Responsibility
---------	------------	-----------	----------------

Pennoyer's Service deserves consideration

Efficient and Economical

Noteworthy achievements

New and Up-to-date methods

Our 76 years of experience

Your guarantee of satisfaction

Equipment to meet all requirements

RESPONSIBILITY

*General Cartage . . . Machinery Moving & Erecting
Safe Moving & Vault Installation
Long Distance Hauling . . . Carload Distribution
Contractors for Hauling and Installing Exhibitions*

PENNOYER MERCHANTS TRANSFER CO.

742 W. Polk St. CHICAGO 7, ILL. Tel. MONroe 5020

PRACTICAL SPECIALISTS

and **REPUTABLE DEALERS in**
PURCHASE AND RESALE OF

METAL WORKING MACHINERY

• Especially for •

FORGING • BOLTS • NUTS • RIVETS • STRUCTURAL
SHEET METAL STAMPING • HEAT TREATING EQUIPMENT

Donahue Steel Products Company

WAREHOUSE and SALESROOM

74th Street and Damen Avenue

CHICAGO 36, ILL.

Phones HEMlock 2820-21



Hill-Clothes

31 AND 33 SO. DEARBORN ST.
PHONE ANDOVER 8211-1560
CHICAGO 3, ILL.

SERVICING A BETTER CLIENTELE

FOR NEARLY

HALF A CENTURY

The Country's Most Friendly Company Offers:

- Modern and attractive agent's and general agent's contracts to those looking for a permanent connection.
- Complete line of Life Insurance policy contracts from birth to age 65 with full death benefit on juvenile policy contracts from age 0.
- Complete line of Accident and Health policy contracts with lifetime benefits.
- Individual Family Hospitalization contracts with surgical, medical and nurse benefits.
- Complete substandard facilities.
- Educational program for field man.

Strong, Progressive Company • Older than 85% of all legal reserve life insurance companies • Openings in California, Illinois, Indiana, Kansas, Michigan, Missouri, Nebraska, New Jersey, North Dakota, Ohio and Wisconsin

NORTH AMERICAN LIFE INSURANCE COMPANY OF CHICAGO

C. G. Ashbrook, Vice President • Director of agencies • North American Building, Chicago 3, Illinois

CHICAGO *World's Largest Railroad Center*

Our Eighty-Fourth Year of

SPECIALIZED SERVICE

to a most exacting clientele

RAILROAD SHIPPERS

The miracle of modern progress is best illustrated in railroad freight shipping. Abreast of this forward march of the railroad industry is the

ARTHUR DIXON TRANSFER COMPANY

Established 1863

Time Tested Dependability

1317-45 S. State St.

HARrison 0580

CHICAGO 5, ILLINOIS

Canada's Drive To Capture Dollars

By JAMES MONTAGNES

Toronto, Canada

CANADA like the rest of the world is suffering a serious dollar shortage. But, unlike many other dollar-starved nations, Canada is taking aggressive steps to improve her position from within. Unavoidably, her new trade controls are hurting some U. S. industries. Canada dislikes this as much as the United States, for her southern neighbor has always been Canada's best customer. But, in the long run, Dominion trade officials believe the recent steps are wise for they should ultimately lead to a more favorable balance of trade with the United States.

Here, in brief review, is what has happened to Canada's dollar position and what she is doing to improve it:

In 1947 Canadians bought goods from the United States valued at \$2,000,000,000. In return, she sold the United States goods worth only half this sum, thus consuming a substantial part of her dollars on hand. Canada and the United States have traditionally been each other's best customer, but to maintain this commerce Canada has always exported enough goods to other countries to obtain the dollars to pay for her excess purchases in the United States. Now, with dollars scarce everywhere, Canada must find other methods to finance her many purchases South of the international border.

Quotas To Save Dollars

This is the basic reason behind the import and travel restrictions which Canada imposed upon her citizens last November. Today, import restrictions on goods received from the United States are tighter than during the war years; both consumer goods and capital goods are closely controlled. Permits are required for capital goods imports and for the U. S. dollars to pay for them. Individuals, as well as companies, are also limited in what they can purchase from the United States. At the same time, they can obtain only \$150 a year in U. S. currency for travel outside Canada.

As a further means of improving her position in a dollar-starved world, the Canadian government is determined to increase exports to the United States and to shave down imports, especially of non-essential goods.

A series of import-export formulae are now being devised for various Canadian industries. The automobile industry's formula, which has already been announced, may provide a pattern for further industry controls, since this is one

of Canada's largest enterprises which maintains close ties with the United States. It is likely to provide the guide especially for those industries which, like Canada's auto firms, are largely controlled by parent companies in the United States.

Under the automotive industry set-up, imports of American-made cars are on a quota basis, established at about 20 per cent of 1947 imports. Canadian automotive plants must now get along with 25 per cent less parts imports from the United States; however, manufacturers who export more this year than in 1947 will be allowed an import bonus. Normally about one-third of Canadian passenger car production and up to 45 per cent of truck production is exported, mostly to British Empire countries. Under the new import controls, Canadian automotive firms will now seek a larger share of the auto business of hard currency countries.

Role Of Branch Plants

American branch plants in Canada are officially estimated to number 2,000 with a capital investment of \$2,300,000,000. They are being asked to work out methods whereby they can manufacture component parts for their parent plants in the United States. At the same time, Canadian branch plants importing parts from parent companies in the United States, are hard at work devising methods of making more of these components in Canada.

Discussing his government's drive to increase exports to the United States, Canadian Finance Minister Douglas Abbott said in New York recently: "We are embarking on a program to increase our U. S. dollar receipts and to achieve a better balance in our transactions with the United States. We intend to solve our problems by expanding our trade, not by restricting it. We believe that we can expand our exports to the United States very substantially and provide additional goods such as wood and paper products, metal goods and some farm products."

Canada is also seeking to build up export trade with hard currency countries, particularly those in Latin America. One evidence of this program is the fact that Canada today has more trade commissioners strategically spotted throughout the world than at any time in the past. They are especially numerous in the republics of the Americas, and as one result Canadian trade with Latin America has shown a distinct improvement since the war.

Canada slipped into her present dollar-short position, partly because of her policy of extending postwar credits to European countries to finance purchases in Canada. With a population of 12,500,000 people, Canada since the end of the war has loaned Great Britain \$1,250,000,000. To various European countries she has



KUPPENHEIMER

Handcrafted Clothes

AN INVESTMENT IN GOOD APPEARANCE

Kedzie 6170-1-2

Engineers • Designers • Manufacturers

Schreiner Steel Products Co.

TANKS — CHUTES — HOPPERS
STEEL PLATE CONSTRUCTION

1127 So. Washtenaw Ave.

Chicago 12

Investment Securities

Public Utility

Industrial

Railroad

Municipal



A.C. ALLYN AND COMPANY

Incorporated

100 West Monroe Street, Chicago

Telephone Franklin 8400

New York

Boston

Philadelphia

Milwaukee

Peoria

Aurora

Waterloo

CALL LANAHAAN'S

FOR A NEW EASY WAY
To Get Fast Replacement
Parts for that

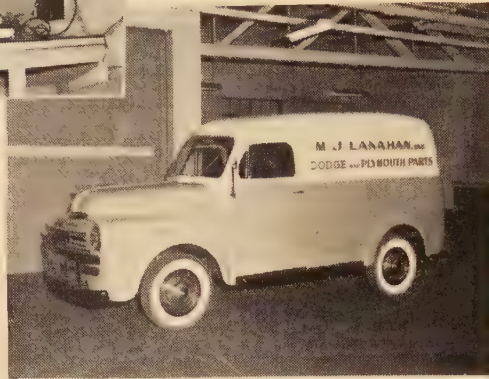
DODGE
PLYMOUTH
CHRYSLER
DE SOTO



A PHONE CALL TO
CALUMET 8400
BRINGS THIS TRUCK
TO YOUR DOOR!

M. J. LANAHAAN, Inc.

2556 SO. WABASH AVE.
CHICAGO



THE FRANKLIN BINDERY

INC.

Edition, Catalog, Pamphlet
and
Plastic Binding

★

732 W. VAN BUREN STREET
CHICAGO 7, ILL.

Telephone: FRAnklin 9893

Louis C. Sudler
Oliver S. Turner

Carroll H. Sudler, Jr.
William A. P. Watkins

REAL ESTATE

Management • Appraisals • Sales
• Insurance • Mortgages

SUDLER & CO.

134 North La Salle St.
DEArborn 0900 Chicago 2

"PLAN NOW FOR FUTURE NEEDS"



We Design and Make Our Own Tools

We Own and Operate a

MODERN and COMPLETE MANUFACTURING PLANT
for All Kinds of

METAL SPECIALTIES

We perform ALL operations in our own plant, Casting—Machining—
Plating—Polishing—Finishing—thus Ensuring you Highest Type of Work,
Prompt Delivery and Economical Costs. . . .

One of the Most Modern and Complete Metal
Working Plants in the Middle West.

For your Post War Needs—Call, Phone, Write.

BADGER TOOL & MFG. CO.

1501 W. Polk St.

Chicago 7

CANal 8490

loaned \$750,000,000, to bring the total credit load to about \$2,000,000,000. On a per capita basis, this is far in excess of the European reconstruction loans extended by any other country. Thus, Canada has been caught seriously short on U. S. dollar receipts for its European exports. To aggravate her trade position, Canada has, of course, been paying in U. S. dollars for its increasing purchases from the United States.

One example of the manner in which Canadians have been over-spending their dollar reserve south of the border shows up in the postwar experience of her tourist industry. Normally, Canada relies upon visiting U. S. tourists to bring in dollars. They did precisely that in 1947, enhancing Canada's dollar holdings in the amount of \$242,000,000. Incoming tourist business was actually up \$20,000,000 from 1946. But Canadian tourists turned right around and spent \$152,000,000 in traveling within the United States.

In the long run, Canadian officials are confident the new dollar restrictions will result in more trade between Canada and the United States. They believe Canadian firms will make a concerted effort to sell more goods south of the border. Canadian export restrictions on some agricultural products, such as meats, may be lifted to obtain needed U. S. dollars. These restrictions have been in force since early in the war to provide enough food for shipment to Great Britain and Europe. Under the European Recovery Plan, Canada expects to obtain a share of the business of supplying Europe with needed commodities. This will be especially attractive since payment will be made in U. S. dollars loaned under the plan.

Canadian government ministers have intimated that the dollar restrictions are not a permanent feature of Canadian-U. S. trade; some have even hinted they may not last much beyond 1948. In the meantime, however, Canadian business will seek to increase its trade with firms south of the border. This trade, Canadian businessmen are confident, will be of long term duration, and it will help to balance more evenly commerce between the two countries.

Meet Joe Jones

(Continued from page 17)

high school population—youngsters too young to do the actual buying, but whose viewpoints are still a highly potent influence to contend with. The car makers are wooing the Teensters, confident their efforts will pay off, not only today, but in the future when the objects of their affection will be actual buyers who do more than prod and plead.

The techniques of the courtship vary. General Motors, one of the first auto companies to begin flirting with youngsters, has adopted a subtle approach, for it is satisfied with an institutional slant

to the promotional effort. Ford had the same idea some years ago, when it instituted training programs for farmers-to-be, but its present campaign quietly but firmly emphasizes the quality of Ford automobiles.

The first large-scale youth program to get underway in the auto industry was announced by GM's Fisher Body Division in 1930. The idea was built around Fisher's trademark, the Napoleonic coach, which has become the standard of quality which the division seeks to emulate in its bodies. The contest campaign encouraged boys to build the most nearly perfect replica of the coach. In recent years, the coach competition has been supplemented and modernized by the addition of a model car building contest, and this year the coach designing contest will be abandoned altogether. Model cars, GM believes, not only have the advantage of universal appeal, they also train boys in craftsmanship and designing. More than 100,000 boys are expected to participate in this year's contest, eighteenth in the series, competing for \$65,000 in prizes.

These aspiring lads will not be the only ones touched by Fisher's adroitly-moving institutional hand. In many schools, movies of previous competitions will be shown. In hundreds of manual training shops, model cars will be a classroom project. If previous promotional experience is any guide, this formidable roster of contest-happy youngsters will emerge as confirmed GM boosters, impressed probably for life with the quality and workmanship of Fisher bodies.

GM's Scooter Derby

So, too, with the boys' "Soap Box Derby," which in 10 years has grown to near-classic status under the careful sponsorship of GM's Chevrolet Division. The Derby was the brainchild of a Dayton newspaperman, who first conceived the idea of a down-hill soapbox scooter race for boys. Handed the golden idea for national sponsorship, Chevrolet quickly took over, and now dubs the contest "the greatest amateur racing event in the world."

In 150 communities throughout the United States, Alaska and Canada, some 50,000 boys are busily constructing Derby racers for this year's competition. Some 4,000,000 persons will witness regional eliminations before the nationwide race culminates with a flourish at "Derby Downs" in Akron next April. Presumably, these 50,000 competitors, plus families and friends, will thus develop a strong community of relationship with Chevrolet. All contestants must necessarily visit a Chevrolet dealer for entry blanks and participating civic and fraternal organizations will all work in close liaison with Chevrolet.

Ford Motor Company, which is now

Quality Products for Your Home and Your Car



RADIO RECEIVERS

AUTO ACCESSORIES

"ALEMITE" LUBRICATING SYSTEMS AND LUBRICANTS

'SOUTH WIND' CAR HEATERS "BASSICK" CASTERS

"STEWART" DIE CASTINGS

STEWART-WARNER CORPORATION, CHICAGO

Quality and Service

Brown and Sharpe Automatic Production

HUDSON SCREW MACHINE PRODUCTS CO.

4500 W. Augusta Blvd., Chicago 51

Capital 2830

SHEETS • STEEL • PLATES

Hot Rolled • Pickled • Cold Rolled

STRIP • BARS • BAND STEEL

SHEARED TO SIZE

We have PICKLING and Oiling facilities

BRIGGS & TURIVAS, INC.

Blue Island Telephone—Blue Island 2700

139th and S. Western Ave.

Blue Island, Ill.

CHICAGO Telephone—COMmodore 1420

Motorola

AMERICA'S FINEST

HOME & CAR RADIO

and

TELEVISION

...

Complete 2 and 3 Way
A. M. and F. M.
COMMUNICATION
SYSTEMS

MOTOROLA, INC. • CHICAGO 51

flexing its promotional muscles in several ways, has made a new bid for teenage affection via the well-trodden comic book route. For the present this program is largely confined to Detroit. Children in the city's public schools have a standing invitation to visit the Rouge works, and thousands of them make periodic pilgrimages to the big plant. The trip over, they are handed comic books covering such subjects as "The Story of Steel" and "The Story of Mass Assembly." In orthodox yet readable fashion, they describe industrial procedures at the Rouge plant. Although the Ford name is ostensibly kept in the background, the indoctrination is nonetheless persuasive. The comic books certainly leave no doubt in anyone's mind that Ford cars are meticulously engineered, thoroughly tested, and backed by vast experience. This direct selling message is clearly stated for the youngest devotee of mass production.

The comic books, incidentally, are strongly recommended for later use in classroom discussions and training. Edited by two New York university professors, they are approved for school study. Another company using similar educational material is B. F. Goodrich, the tire manufacturer.

Long-Term Salesmanship

Long observant of this juvenile courtship by Fisher, Chevrolet, and Ford, another auto builder—Chrysler Corporation—came up last summer with its own unique approach to the youth market. Plymouth Motor Corporation, a Chrysler subsidiary, sponsored an international model plane contest at Detroit last August, and now happily looks forward to more. For this event, Plymouth divided entries into three groups, ranging in age from 12 to 16, 16 to 21, and over 21. State prizes were awarded for 12 rubber-powered events and 18 gas-powered events. As with GM events, Plymouth's direct advertising tie-up is quite subtle. But the flying contests doubtless create a product consciousness in the minds of participants and their friends. Present and future car buyers are targets of the promotion, and Plymouth reaps a reward in product identity—the first prerequisite in long-term salesmanship.

Obviously, juvenile courtship by business is nothing new. The box top craze has been hypnotizing youngsters for generations. The more recent transition from box tops to automobiles is certainly a long step up the business ladder. If nothing else, it proves one thing: companies selling directly (or presumably directly) to adults between these two extremes may well afford to reappraise their sales campaign. Perhaps a second look at Joe Jones, and his influence on family purchases, would be an enlightening experience, well worth the additional effort.



Brad Foote SPEED REDUCERS

Worm - Helical - Herringbone

Single and Double reduction—Every type—All horse powers—Any ratio—A speed reducer for every purpose. Made in ultra modern plant—one of the largest in the middle west solely for cutting gears—Highest quality workmanship and materials.

BRAD FOOTE GEAR WORKS, INC.
1309 S. Cicero Ave. Cicero 50, Ill.
Phone LAWndale 4070



Invest in the MIDDLE WEST

Reviews of Middle-western Companies

MUCH of the equipment now being used to effect greater efficiency and economy in the production of oil, natural gas and other petroleum products has been designed and developed by the 21-year-old National Tank Company. Today National's research program is being stepped up in the search for methods which will produce further economy and efficiency in the production of oil and gas.

National Tank pioneered a new industry when, in 1936, it designed and built the first distillate recovery and cycling plant ever constructed. The cycling industry now is a major factor in the production of the light, valuable hydrocarbons contained in natural gas.

National's Method

National engineers developed a method of collecting the natural gas which is produced with the distillate, compressing the gas and forcing it into the ground at high pressures. This artificially maintained pressure has the effect of holding the distillate in the ground in the gas phase. As the gas containing distillate in the gas phase is produced from the wells, the recovery plant separates the valuable hydrocarbons and then returns the natural gas into the ground to maintain reservoir pressure—thus completing the cycle. Maintenance of high artificial

pressure prevents the heavier hydrocarbons from being precipitated into the dry reservoir sand. Thus, most of the recoverable hydrocarbons are made available to the petroleum industry. National builds many of the high pressure vessels used in the industry.

Developed Emulsion Treater

Another National product which instituted new economies in the petroleum industry by making possible higher recovery processes is an emulsion treater.

Almost all oil fields produce water with the oil at some time in their producing life. Oil and water, when agitated and mixed with gas, form an emulsion. Emulsified oils are not acceptable to purchasing companies through their pipe lines or other gathering media. Before the advent of the National treater, emulsions in many fields did not lend themselves to demulsification without great expense and loss of much valuable material in the form of gasoline vapors. Older equipment drove off light hydrocarbons and other valuable end products. National treaters recover all the gas economically and preserve the valuable end products which were wasted by other methods, as well as treat the oil to a dry or acceptable water content.

The company's newest product, a natural gas dehydrator, was developed to



Left to right: Emulsion treater, oil-gas separator, and storage tanks made by National

A. J. BOYNTON AND COMPANY

Engineers and
Technical Counselors

58 EAST WASHINGTON STREET
CHICAGO 2, ILL.

CALENDAR OF SERVICES

ENGINEERS AND DESIGNERS OF INDUSTRIAL PLANTS AND EQUIPMENT

- Investigations
- Estimates
- Building Design
- Special Machine Design
- Metallurgical Studies
- Product Finishing Systems

New Projects
Expansion or
Modernization Programs

Gerrard Steel Strapping

... faster, safer, less expensive!

FASTER With Gerrard Steel Strapping, you don't have to bother with seals or crimping... all Gerrard machines tension, tie and cut the strapping.

SAFER Every package is rigidly bound, preventing torsional sway and making it pilfer-proof.

LESS EXPENSIVE Speed and ease of operation, and lower cost per lineal foot cut packaging cost.

Gerrard Round Steel Straps come in a wide range of gauges and can be used to bind and reinforce packages of every size and weight from light parcel post and express packages to carload shipments of steel pipe and plate. The services of Gerrard Engineers are available without cost to help you solve your packaging problems. Write for our free book, *The Blue Book of Packaging*.



Gerrard-strapped, interlocked pilfer-proof bundle. Model on suspension equipment is always within easy reach.



Gerrard Steel Strapping Company

(Formerly The Gerrard Company, Inc.)
2917 West 47th Street, Chicago

UNITED STATES STEEL



STROMBERG CARLSON

INTER COMMUNICATING TELEPHONES

*Will Solve
Your
Communication
Problems*

Call **ANdover 1428** For Further Particulars

Tri-Par Sound Systems

128 N. FRANKLIN ST.

Exclusive STROMBERG-CARLSON Distributors

APPLETON CONDUIT FITTINGS

AND OTHER ELECTRICAL PRODUCTS

The World's Most Complete Line of
Conduit Fittings and Lighting Equipment—Everything
Needed for Any Type of Wiring Installation



We want anyone interested in this complete line to have a copy of this interesting and useful binder. Address dept. CAB or phone.



APPLETON ELECTRIC COMPANY

1701-59 WELLINGTON AVE., CHICAGO 13, ILLINOIS

Phone **BUCKingham 1711**



solve a vexing problem encountered by the rapidly growing natural gas industry. The problem was this: long distance piping is essential to the operation of the natural gas industry. When pressure is reduced for piping, however, the gas expands and cools, freezing any water vapor it may contain. Climatic temperatures also contribute to freezing. Even when temperatures are maintained above the normal freezing level, hydrates similar to ice—termed “pipe line ice”—may be formed in natural gas when it is subjected to high pressures. Such “pipe line ice” may occur at temperatures as high as 75 degrees Fahrenheit, under certain climatic conditions so long as pressures are high, unless water vapor is removed from the gas. Ice or hydrates reduce the efficiency of the transmission line and can cause complete stoppage of the flow.

To solve this problem, National's engineers designed a compact, portable, automatic system to remove the water vapor from the gas before it enters the transmission line.

Because of the increasing demand by gas pipe line companies for dehydrated gas, in preference to “wet” gas, the new dehydrator is one of the National products in greatest demand today. Although the dehydrators have been in production only a little more than a year, they already process nearly 50 per cent of the natural gas fed daily into “Big Inch,” the most famous of natural gas transmission systems which runs from East Texas to the industrial areas of the Northeast.

New Products Aid Growth

The development of new products and their increased acceptance by the petroleum industry has been a major factor in National's growth in sales and earnings. Another factor has been the high level of activity in the petroleum industry.

The company's dependence on the prosperity of the petroleum industry was much more pronounced in earlier years. Before 1938 the index of National's net sales followed closely the index of total well completions in the petroleum industry as a whole. Since 1938, the company's sales have advanced much faster than the index of well completions. This growth, which is reflected in both sales and earnings, has resulted not only from an improvement in the operation of the petroleum industry, but also from National's development of new products. The company's dependence on the trend of drilling activity has been offset especially by increasing use of its products for high efficiency recovery operations.

National Tank's sales and profits reached a new all-time high in the fiscal year ended October 31, 1947. Sales totaled \$11,600,000, a gain of 54 per cent over the preceding year. Net profits increased by an even higher ratio, rising to \$1,358,895 or \$4.11 a share on 330,400 outstanding shares of common stock

from \$510,685 or \$1.55 a share in the preceding fiscal year.

"Expressed in dollar totals, the increased sales figures partly reflect the inflationary trend of our nation's economy," Jay P. Walker, president, says. "However, the figures for unit sales, which show a true perspective, prove that the company's growth during the past fiscal year was genuine and sound."

Last year's growth is typical of the steady progress which has marked National Tank Company's development since its founding in 1926. Following is a summary of sales and net earnings for the last nine fiscal years:

FISCAL YEAR	Sales	Net Income
1947	\$11,539,677	\$1,358,895
1946	7,454,730	510,685
1945	7,307,739	323,005
1944	5,842,486	246,777
1943	5,849,712	352,641
1942	4,271,777	217,661*
1941	4,090,314	509,499*
1940	3,097,428	501,853
1939	2,742,588	325,277

*After loss of \$33,525 on sale of a subsidiary stock in 1941, and loss of \$116,873 on liquidation of that subsidiary in 1942.

The October 31, 1947, balance sheet showed current assets of \$5,413,597 against current liabilities of \$2,089,292. Principal items in current assets were cash of \$1,162,096, accounts receivable of \$1,793,234 and inventories of \$2,393,794. A table showing current assets, current

liabilities and working capital at the end of each of the last five fiscal years follows:

Oct. 31	Total Current Assets	Total Current Liabilities	Working Capital
1947	\$5,413,597	\$2,089,292	\$3,324,304
1946	3,396,228	1,087,633	2,308,596
1945	2,709,768	788,778	1,920,990
1942	2,515,461	446,247	2,069,214
1939	1,071,673	297,179	774,494

At the close of the last fiscal year, the company's only liability other than current obligations was a note payable, due in 1950, of \$67,567. Capital is comprised of authorized capital stock of 500,000 \$1 par shares, of which 330,400 are outstanding, capital surplus of \$424,005 and earned surplus of \$3,013,061.

Paul H. Davis and Company headed an underwriting group that distributed 139,700 of the common shares a year ago. Much of the stock, which is traded in the unlisted market, is held in the Chicago area. The company now has approximately 1,000 stockholders.

In the fiscal year ended October 31, 1947, dividends paid totaled 90 cents a share on the common stock. On January 31, 1948, the company paid a quarterly dividend of 25 cents a share.

The company has four plants in Tulsa and one at Electra, Tex. During the past year three of the plants were enlarged. Construction is to start this year on an additional plant.

Manufacturers of

**Rods, Wire and
Extruded Shapes in
Brass, Nickel Silver and
Architectural Bronze**

CHICAGO EXTRUDED METALS COMPANY

1602-1642 South 54th Ave.

Cicero 50, Ill.

Tel. Crawford 2121

Manufacturers

- Switchboards
- Panelboards
- Steel Cabinets

for ELECTRIC LIGHT and
POWER DISTRIBUTION

CHICAGO SWITCHBOARD COMPANY, INC.

4506 Lawrence Ave., Chicago 30
KILdare 7723



Group Aids Employee Relations

Thousands of business firms employing millions of workers have adopted group insurance plans. Among the reasons given by employers for the adoption of group protection are the following: (1) better employee-morale resulting in more loyal and satisfied workers; (2) more cordial employee-relations; (3) reduction in labor turnover; (4) increased efficiency and better health.

Do you have a group insurance plan for your organization? Washington National is providing group life; accident and health, and hospitalization for many of the nation's leading manufacturers and businesses. Allow us to show you, without obligation on your part, how group protection can fit into your program of employee benefits. Write or telephone for details.

WASHINGTON NATIONAL INSURANCE COMPANY CHICAGO

Executive Offices: Evanston, Illinois

Telephone GREenleaf 7900

GEORGE R. KENDALL, President

Let

MADDEN**TOWMOTOR**SALES — SERVICE
AND PARTS

*MADDEN'S TRAVELING SERVICE STATION performing periodic maintenance to Towmotor lift trucks at one of the Coca-Cola Bottling plants

TRAVELING SERVICE STATIONS

keep your industrial lift-trucks operating!

Madden service department is organized to assume complete responsibility for maintenance, repair and overhaul and is operated to give the owner of material handling equipment the type of service he has learned to expect from makers of fine automotive vehicles.

FOR PREVENTATIVE MAINTENANCE: Made through a service agreement—regular scheduled checkups with our fleet of TRAVELING SERVICE STATIONS which are fully equipped with air compressor, high pressure lubrication, and all aids to thorough preventive work-insuring continuous operation of your lift trucks.

FOR EMERGENCIES: Each Traveling Service Station has its own stock of spare parts and tools—for all kinds of trouble shooting, and for emergency repair service.

FOR ASSURANCE: Each Traveling Service Station is operated by a thoroughly trained and competent mechanic who is ready for every assignment.

MAJOR OVERHAUL SERVICE: Complete overhaul, including motor replacement—inspection, painting and final testing—and back-to-you with minimum loss of time.

REPAIR PARTS SERVICE: Complete stock of parts now available here in Chicago.

Only Madden offers:

EXCLUSIVE REPAIR
AND MAINTENANCE SERVICE
DIRECT TO YOUR
PLANT OR WAREHOUSE

Exclusive DISTRIBUTORS OF



BRIDGE RAMPS

Madden Equipment Co.

ALL PHONES
YARds 3233

5107 SOUTH ASHLAND AVENUE • CHICAGO 9, ILLINOIS

Here, There and Everywhere

(Continued from page 8)

tronic device whose "electronic eye" will control thread tension and thus provide uniformity in the playing performance of all golf balls. Another innovation will be the use of a silicone "bouncing putty," a new elastic substance derived from sand which will be put into the ball's core to improve distance and "click."

• **"Going Up!"—Iowa-Fashion—**Out in Iowa, where folks always talk about tall corn, there will be something even taller to talk about before long. Near Des Moines, the Westinghouse Electric Corporation will build the tallest man-made structure in the world, an FM radio transmitter that will tower 1,530 feet skyward. With a scoff at more diminutive structures, Westinghouse says the tower, planned by station KRNT to reach 2,000,000 listeners, will rise 280 feet higher than the Empire State Building, 546 feet above the Eiffel Tower.

• **Good Manners Via The Postman—**The railroads are steadily becoming more public relations conscious. One road, the New York Central, has instituted a correspondence course in the subject as a further means of indoctrinating employees on the important matter of courtesy and service to travelers and shippers. For several years, the road has conducted public relations conference classes, but because many traveling employees are unable to attend they will receive their good manners training by mail.

• **Intellectual Advancement Department—**Thanks to the versatility of modern psychology, the proud father who promptly enrolls his new-born infant at Old Eli can now systematically set about proving that his offspring will be able to handle the curriculum. It is Northwestern University that has made this contribution to learning by devising an intelligence test for babies as young as four weeks. "Adaptation to physical and social environment" can be scientifically measured, the university avers, by recording the manner in which an infant closes his fingers around a rattle, blinks when confronted with a light, focuses on an object, and otherwise comports himself in the psychologist's presence. However, the university concedes, there's no sense fooling with the little brat unless he's "awake, dry and not crying."

• **Loophole In Closed Shop Ban?—**A new trend in labor-management relations, aimed at circumventing the Taft-Hartley ban on closed shops, will be the effort of some unions to obtain assurances that only workers with the most seniority in their industry will henceforth be hired. This is the prediction of

DELIVERY!

We are one of the few manufacturers in the country today able to make deliveries when you need them. No long delays here.

BUSINESS FORMS ONE-TIME CARBON FORMS

We accept orders for as few as 1000 Forms

We'll help you design your form for greater efficiency

PHONE WEB ster 4646

BATTYE-FRANKLIN CORP.

THE FRANKLIN BLDG. 720 SO. DEARBORN ST.

ALLIED

Photo Engravers

A LEADER IN THE
PRINTING PLATE FIELD



PHONES
STATE 0280-1

101-103 SOUTH WELLS • CHICAGO, 6

the National Foremen's Institute which points out in its "Executive's Labor Letter" that if employers agree to the demand, vacant jobs would be filled largely by unionized workers because in most industries the long-term employees usually hold union cards, while young persons seeking jobs for the first time are not likely to be union members. The foremen's institute calls attention to the fact that one union, the Sailors' Union of the Pacific (AFL), has already succeeded in having West Coast shipowners agree to such an arrangement.

• **Rust-Proof Water Tanks**—That perennial problem of the homeowner, rusting hot water tanks, may finally be licked. The solution, according to the Dow Chemical Company, may be in a curious-looking magnesium rod, recently developed by Dow, that can be fitted inside hot water tanks. Thereafter, the magnesium rod—technically labelled an anode—becomes "self-sacrificing" and itself disintegrates in place of the tank walls. Rusting is largely due to a battery-like action set up between the water and the metal. As Dow explains it, magnesium has the ability to reverse the current flow, corroding itself instead of the steel tank.

• **New Source Of Wax**—An annual source of 10,000,000 pounds of new industrial wax from the Yucatan peninsula has been turned up by the International Division of the Armour Research Foundation of Illinois Institute of Technology. The new wax, which has properties similar to those of carnauba, is obtained by a solvent extraction process from waste pulp remaining after henequen or sisal fiber is stripped. The wax is hard, has a high melting point, and bleaches readily for industrial finishes and coatings.

• **Steel On The Silver Screen**—Steel workers in several United States Steel Corporation plants in the Chicago area are about to double as movie actors. They will take part in a new film, presenting the story of Big Steel's reconversion activities since V-J Day, which will portray actual plant operations across the country. In the movie, scheduled for May release, most of the roles will be played by actual steel workers portraying themselves on the screen.

• **Lumber Demand At Record Level**—Our national demand for lumber, principally in the construction industry, continues to exceed all records. At the present time, however, our lumber yards are pretty well staying abreast of this record demand. Last year, according to the government-industry Lumber Survey Committee, total U.S. production was probably slightly over 36½ billion board feet, marking an increase of five per cent over 1946 and a rise of nearly one per cent above the peak war year of 1942. Despite

MARSH & McLENNAN

INCORPORATED

Insurance Brokers
AND AVERAGE ADJUSTERS

Chicago	New York	San Francisco	Detroit
Washington	Pittsburgh	Minneapolis	Boston
Buffalo	Cleveland	Columbus	Indianapolis
Milwaukee	Duluth	St. Paul	St. Louis
Los Angeles	Phoenix	Seattle	Portland
Vancouver	Montreal	Havana	London

■ Makers of America's most popular complete lines of Fretted Instruments, Electric Guitars and String Basses.

Regal Musical Instrument Co.
3211 W. Grand Ave. Chicago 51
NEVada 0330

ACME MODEL WORKS

MACHINE SHOP
Mechanical and Electrical Devices
Scientific Instruments Experimental Work
Light Manufacturing, Stamping
Screw Machine Products
ANDover 3834
200 North Jefferson Street Chicago 6

Use Only the BEST of Springs

GIBSON - SPRINGS

STANDARD OF QUALITY FOR 75 YEARS



ALL TYPES AND SIZES • MADE FROM ALL SPRING MATERIALS

Also
Small, inexpensive parts like springs, which vitally affect performance of a whole equipment, should be purchased on a basis of quality only. May we quote on your requirements?

CLIPS • CLAMPS
SMALL STAMPINGS
WIRE FORMS

Telephone MOHawk 6622

THE WILLIAM D. GIBSON CO. 1800 CLYBOURN AVE., CHICAGO 14, ILL.
(DIVISION OF ASSOCIATED SPRING CORPORATION)

ATTENTION

DIRECTORS AND TRUSTEES

of hospitals, schools, churches and other charitable institutions. An important decision has been rendered regarding the liability of charitable institutions. Full details are available in a special leaflet entitled "An Important Message for Directors and Trustees." We will be glad to provide you with a copy.

MOORE, CASE, LYMAN & HUBBARD

Insurance Service Since 1859

175 WEST JACKSON BOULEVARD, CHICAGO 4, ILLINOIS

Telephone Wabash 0400



Sales • Management • Insurance

INDUSTRIAL PROPERTIES

39 South LaSalle Street

Chicago 3, Illinois

Telephone ANDover 1300

SOUTH CHICAGO COAL & DOCK CO.

Operating 3 Dock and Rail Yards and
A Complete Stoker and Engineering Division



**Delivering Selected Quality Coal
Anywhere in Chicago**



General Offices: 7917 Exchange Avenue

Telephone: SAGinaw 4000

this tremendous output, the committee sees little likelihood of a break in lumber demand. For one reason, it is estimated that 26½ billion feet of lumber will be required this year by the construction industry, which in 1947 used only 24.3 billion feet.

• **Bicycle Boom**—There are more men, women, and children riding bicycles today than at any time in the last 25 years. Reporting upon the reviving popularity of bicycling, the Bicycle Institute of America adds with enthusiasm that this new trend has given the industry a corresponding production boom. In 1935, about 260,000 bicycles were sold in the United States. After five years of intensive trade association publicity, the figure climbed to more than a million in 1940. Last year, the Institute estimates, nearly 2,750,000 bicycles were sold. Among other factors producing this revival, the bicycle people note, has been "the cult of weight losing among women."

• **Video Going Into Homes**—The television industry has now definitely raised itself from the category of a tavern curiosity. In Chicago, for example, the Balaban & Katz station WBKB reports that of 15,062 television sets in operation, 70 per cent are now installed in private residences while only 22 per cent are in "business" locations including restaurants and night clubs. WBKB also finds that in the Chicago area the average television audience now numbers 162,545.

• **Building A New Market**—It is generally agreed that home freezing units have flooded the market in advance of a genuine mass-market demand. Most people know very little about the usefulness of a freezer, how it can save them time and money. Now, however, manufacturers are working hard to correct this situation. For one, the Nash-Kelvinator Corporation is distributing a new sound film designed to show women's clubs, home economics classes and other audiences how much a home freezer can contribute to better living. The film describes the preparation of foods for freezing, packaging and the use of frozen foods in day-to-day meal service.

• **Preventing Power Fluctuations**—When an electric heater is plugged in, other lights in a home usually are dimmed for a moment. This is annoying, but power fluctuations can be really serious where men are working with delicate instruments and precision equipment for their operation can be upset completely. Northwestern University engineers, however, have now developed an improved system for electronically regulating the power used to operate their equipment. The method involves a light beam and photocell. If the power line voltages goes up, the light gets brighter, and the elec-

tronic regulator prevents the change in input from being felt at the instrument.

• **Employee Communications Via Records**—A new twist in the old problem of developing closer understanding between labor and management has now been devised by the Muse-Art Corporation of Philadelphia. Through a service called "Plant Broadcasting," the company will bring the transcribed voices of radio and movie personalities into offices and plants. The point is that through appropriate dramatic sketches, variety shows, and discussions, Muse-Art believes management's problems can be more effectively explained to employees.

• **Evening Study Endorsed**—Ninety-three per cent of a group of firms selectively polled by Northwestern University believe employees with college degrees should continue their studies while working. Half of these firms provide some form of added financial assistance to employees who continue their education.

• **Tile Production Up**—Nationwide production of ceramic tile in 1947 was 44 per cent greater than in 1946, according to the Tile Council of America. The trade group reports that domestic tile manufactured last year totaled 89,242,000 square feet, about 27,000,000 more than in the previous year.

Metallurgy

(Continued from page 23)

like tubes attached to it, the metallizing gun is a relatively simple mechanism. Metal wire, fed through a heating chamber, is liquefied by an oxy-acetylene or oxy-propane gas flame, then combined with compressed air, and forced out through the nozzle in a fine atomized spray.

One highly publicized application for metallizing is the method of printing, rather than wiring, electronic and radio circuits developed recently by the Bureau of Standards. A warborn scientific development, printed circuits were first utilized in radio-activated proximity fuzes for anti-aircraft shells. Printing intricate circuits dispenses with the twisting maze of wires, solder, capacitors, and resistors that crisscross the underpinnings of a conventional radio chassis. In their place is a simple flat plate with several metal-filled grooves. By varying width and thickness of the groove as well as the metal used, the flow of current through the various radio components is controlled and channeled. Among several processes employed in making printed chassis, metallizing is one of the most important. The chassis, which is nothing more than a flat plate of ceramic, plastic or other non-metallic

Dominating La Salle Street

BOARD OF TRADE BUILDING

Chicago's
Outstanding
Business
Address

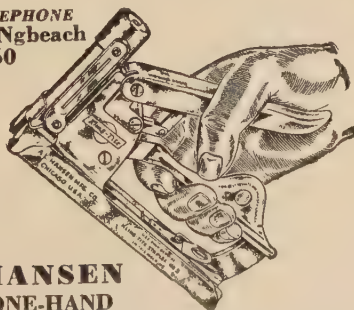
Hogan & Farwell

Inc.

Managing Agent



TELEPHONE
LONGbeach
1260



HANSEN ONE-HAND TACKING MACHINES

For all kinds of tacking, fastening and holding operations—plywood, small parts, corners, insulation, screens, etc. Also, Tacks and Tack-points up to 3/8" length.

A. L. HANSEN MFG. CO.
5067 RAVENSWOOD AVE. CHICAGO 40

COMPLETE INSURANCE SERVICE

With Intelligent Co-operation
RELIABLE COMPANIES—WORLD WIDE
Free appraisal service on buildings
we insure.

STARKWEATHER & SHEPLEY,
Inc.

Established 1871

A-1255 Insurance Exchange Building
Wabash 1022

L. D. Stitt, Pres.
G. W. Bischoff, Vice Pres.

Why ... can employers safely recommend a licensed small loan company to employees? The answer is, any small loan company licensed under the ILLINOIS SMALL LOAN ACT is supervised by the Department of Insurance. That supervision assures employed men and women modern, equitable loan service.

You can be sure that the small loan legislation of Illinois is an outstanding example for maximum protection for the small borrower. All borrowers know exactly how much they pay because the lawful interest rate is openly stated and this rate is charged **only** on the unpaid balance.

Have you a list of our member companies? We'll gladly send a list to you or to your personnel office. We cordially invite your employees to seek financial advice or a convenient loan up to \$500 anytime the money can be used to good advantage. Yes, Mr. Employer, you and your employees can definitely patronize us with complete

Confidence

ILLINOIS ASSOCIATION of SMALL LOAN COMPANIES

111 WEST WASHINGTON STREET • CHICAGO 2, ILLINOIS

ENGINEERS

Inspection • Tests
Consultation • Cement
Concrete • Chemical
Physical and Metallurgical
Laboratories

Robt. W. Hunt Co.

General Offices and Laboratories
175 W. Jackson Blvd.
Chicago 4

WABash 0872

New York - Pittsburgh - St. Louis - San Francisco

RUBBER GOODS MOLDED MECHANICAL SPONGE

To Your Specifications

ROTH RUBBER COMPANY

1860 S. 54th AVE. CICERO 50, ILL.
LAWndale 1060-1061

material, is covered with a Scotch tape stencil which adheres during the processing and is easily removed afterwards. The stencil openings correspond to the wiring diagram to be sprayed. The stencil-covered plate is sandblasted so the surface can grip the sprayed metal. Then, a metallizing gun goes to work spraying metal into the exposed grooves. The stencil is removed and a new one is applied to the next plate. An alternate method entails machining the face of the plate with grooves, sandblasting, spraying, and finally milling the plate surface. Using two metallizing guns, one plant now produces panels four by eight inches at the rapid-fire rate of 900 an hour.

Metallizing has proved valuable also in the machine tool industry, where it is now being used to salvage worn parts. It works like this: After many years of service, an automotive crankshaft has become so worn that it no longer operates satisfactorily. Ordinarily, the shaft would be scrapped and replaced with a new one, since conventional fabrication methods are designed to remove metal, not add it. Metallizing, however, does precisely this. The shaft is placed on a lathe and the worn sections roughened, enabling sprayed metal to adhere uniformly and permanently. Then, a metallizing gun, mounted on the tool post, sprays the worn section. When sufficient metal has been deposited, the shaft is machined to original dimensions. The same process can rectify a serious machining error in which a new part is undercut. Again, metal is added and the part re-machined to original dimensions.

A Permanent Metal Seal

Metallizing also permits metal to be bonded to non-metal. In a casket factory, for example, wood boxes can be coated with sprayed zinc or copper to provide a permanent seal against deterioration. Almost all types of metal can be spray-bonded to fabrics, stones, ceramics, glass and bricks. The same can be accomplished, of course, with different metals; iron and steel parts can be sprayed with zinc, aluminum, and other non-corrosive metals.

In common with almost all fabrication methods, spraying and spinning have limited applicability. It is doubtful whether cast iron furnaces will ever be processed by metal spinning or automobile fenders by spraying. Powder metallurgy, the third revival of an old art, is unique in this respect. In an emergency it can substitute for an amazingly wide range of metal fabricating methods. Such is the case in Austria today, where production facilities destroyed during the war still have not been replaced. There metal powders are being utilized to a phenomenal extent. In the absence of wire and cold-heading machines, Aus-

trians now make nails and screws with metal powders. Lacking bar stock, lathes and adequate tools, they are making gears and other parts from powder. Lacking strip and sheet steel, they make brackets, latches, and other flat parts from powder. Obviously, such practices are uneconomical by ordinary standards. Powdered metal is more expensive than other forms of metal; super-accurate molds for parts are expensive and difficult to make; processing equipment is costly. But ordinary standards do not prevail in Austria, hence, powder metallurgy is practical there for the time being at least. Ordinary standards, in fact, did not hold in this country during the war. Then, the standard was production first, cost second. Thus, we used powder metallurgy widely during the war. By now, powder metallurgy has settled back to a more appropriate role as a metal working method that can do many things superbly, other things well, and still others only at a prohibitively high cost.

Low Labor Costs

Fabricating with powders requires expensive presses, furnaces, and tool and die making facilities. However, the process itself is relatively simple. The powder is placed in a mold or die cavity and compressed under great pressure to form a "compact," the term used to describe the relatively weak compressed part. If a laminated structure is desired, several different powders are compressed. The compact is sintered in a conventional heat-treating furnace, then customarily transferred to a "coining machine" for added compression and finishing. Equipment and die costs are high but labor costs are lower. The process is semi-automatic requiring only semi-skilled labor.

Powdered metals were introduced over a hundred years ago in the production of platinum products. No further progress occurred till the early part of the present century when a process for making tungsten for lamp filaments was patented. Because no other fabrication method so simplifies the handling of high-strength and high-melting point metals, powder metallurgy has been used since its inception for processing and fabricating metals like platinum, tungsten, molybdenum, titanium and zirconium. It was used, typically, in the development of carbide-tungsten cutting tools, second in hardness only to diamonds. They can be fabricated by no other conventional method. Only when tungsten-carbide powders are combined with small amounts of cobalt can this material be formed for use in metal working. Recent improvements in super-hard and super-tough metals have been accomplished only through our growing knowledge of powder metallurgical methods.



HENRY ERICSSON COMPANY

Established 1883

General Contractors

228 N. La Salle St.

Chicago, Ill.

JEWEL

**INDUSTRIAL AND
SPECIFICATION FINISHES**

✓ QUALITY
✓ UNIFORMITY
✓ ENGINEERED

Jewel Paint and Varnish Co.
CHICAGO, U.S.A.
345 N. Western Ave. **SEE ley 2430**
CHICAGO 12

**Motion Picture
Printing Machines
and
Automatic
Light Controls**

•

OSCAR B. DEPUE
2600 W. Irving Park Road
Chicago 18, Illinois
AMBassador 5000

Center of NEW Industry



KENWOOD

MANUFACTURING DISTRICT

IDEAL LOCATION FOR YOUR PERMANENT PLANT

Aggressive businessmen are realizing the expanding possibilities of the Kenwood district—You too will agree that the advantages listed below solve all of the location problems for your new plant.

KENWOOD...

- is large enough to allow ample room for plant expansion.
- is served by two belt railroads.
- is close to densely populated neighborhoods—a ready supply of labor.
- is bounded by the 47th St., 51st St. and Kedzie Avenue car lines. "L" and bus lines from all parts of Chicago serve it via transfer.
- is fairly and properly priced. Generous terms for financing developments are available.

Be sure to investigate this industrial district if you are considering a new plant location. Write, or call for particulars.

J. H. VAN VLISINGEN & CO.

RANDolph 4042

120 South La Salle St. Chicago 3, Illinois

PHIPPS INDUSTRIAL LAND TRUST—Owners

Another unique advantage of powder metallurgy is porosity control, possible only with metal powders. With powders, metals can be produced with the density of tungsten or the porosity of a sponge. Thus, in fabricating metal oil filters the degree of filtration is controlled by regulating the degree of porosity. For damp area, parts are made from metal powders and impregnated with oil. The oil is metered to the surface and affords resistance to corrosion. Controlled porosity is similarly utilized in the fabrication of breathers, separators, metering devices and flame arrestors.

The advantages of controlled porosity are partially offset because a porous structure is naturally weaker than a solid one. To overcome this, a method of infiltrating the porous structure with additional metal was recently developed. Thus, copper can be introduced into the steel or iron powder part during heat treating. Capillary action draws the liquid copper into the open pores. Such parts possess near-absolute density and have extremely high tensile strength.

Making Friction Parts

One of the most valuable applications for powder metals has been in the production of friction materials for automobile clutches and brakes. Here, metal created from powders tends to conduct heat away from the friction surface; it also can operate under all temperatures. Such friction parts have operated to within extremely close tolerances at atmospheric temperatures ranging from minus 65 degrees to plus 200 degrees Fahrenheit. In addition to those metal working fields in which it encounters no competitive methods, powder metallurgy is holding its own against die casting, machining and sand casting in the fabrication of hardware, gears, dies, gages, magnets, medals and tools.

Metallizing, metal spinning and powder metallurgy are not likely to revolutionize any of our more conventional metal working processes, nor are they likely within the foreseeable future to influence seriously any of our great metal fabricating trades—auto building, appliance making, or railway supply production. The three semi-handicraft processes are significant and valuable developments nonetheless, partly because they have performed extraordinary chores when no other processes could be utilized. In an emergency they have demonstrated their serviceability and in future emergencies they may again assume vastly greater importance to industry generally.

Meanwhile, as metal working methods not yet fully explored, they hold peculiar fascination, for they embody industrial progress which has derived its force—strangely enough—from "something old, something new, something borrowed ..."



INDUSTRIAL DEVELOPMENTS

IN THE CHICAGO AREA

INDUSTRIAL developments in the form of new construction, expansion of plant facilities and the acquisition of land for industrial purposes in the Chicago Industrial Area totalled \$15,527,000 in February. This compared with \$14,210,000 in February, 1947. Total expenditures in the first two months of this year were \$27,653,000 compared with \$19,077,000 for the same period in 1947.

Youngstown Sheet and Tube Company will begin construction soon to expand the pig iron capacity of its Indiana Harbor Works in East Chicago. The Number One blast furnace will be rebuilt to increase capacity from 800 tons to 1,400 tons per day.

E. I. du Pont de Nemours and Company will install a large unit for the production of Freon, a refrigerant, at its Grasselli Division in East Chicago, Ind. F. H. McGraw and Company, construction engineers.

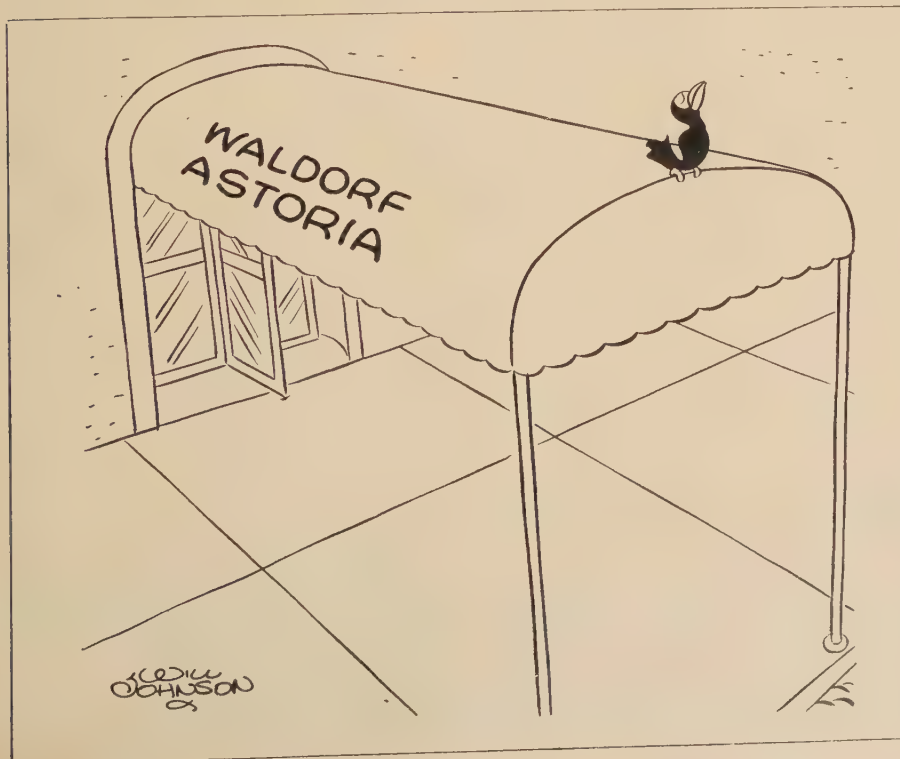
B. Kuppenheimer and Company, 415 S. Franklin street, has purchased the

A. B. Dick Company factory at 3040 W. Lake street. The two-story plant, located on a 141,000 square foot site, contains 164,000 square feet of floor area. A. B. Dick Company has a new plant under construction on a 60-acre site at Touhy avenue and the Chicago, Milwaukee, St. Paul and Pacific Railroad in Niles, Ill. Nicolson, Porter and List, broker for both parties.

Holleb and Company, 167 S. Water Market, is completing plans for a large warehouse and packing plant to be located on a 15,000 square foot site at the corner of Western and Bross avenues. The plant will contain 82,000 square feet of floor space. A. Epstein and Sons, engineers and architects.

Johnson Motors, Division of Evenrude Manufacturing Company, is building an addition to its Waukegan plant. The addition will be used for aluminum die casting.

Clearing Machine Corporation, 6499 W. 65th street, in the Clearing District, has purchased approximately five acres



Sheet Metal Fabricators

unexcelled facilities for quantity production.

Developing—Designing and Manufacturing of

**PATENTABLE METAL
SPECIALTIES.**

HOT TINNING
of Tanks—Tubes—Castings

C. DOERING & SON, Inc.
Lake at Loomis, Chicago 7, Ill.
Phone Monroe 0921

BATTEY & CHILDS ENGINEERS

Engineering Services for Industry
Examinations, Analysis, Reports
Design, Supervision of Construction

231 So. LaSalle St., Chicago 4, Illinois

Carpentry • Masonry • Concrete Work
INDUSTRIAL ALTERATIONS

L. J. GRAF CONSTRUCTION CO.

General Contractors
700 N. Michigan, Chicago-11 SUPERior 9298

Industrial	Institutional
GENERAL CONTRACTORS	
Additions, Remodeling, Alterations	
E. L. Archibald Co.	Est. 1916
79 W. Monroe St.	Fra. 0274
24 Hr. Telephone Service	
Residential	Commercial

DOOLEY-ST. ARNAUD ELECTRIC CO.

CONSTRUCTION • MAINTENANCE
EQUIPMENT REBUILDING

Manufacturers of
INFRA RED DRYING EQUIPMENT AND
FLUORESCENT LIGHTING FIXTURES

327 S. LaSalle St., Chicago 4, Ill.
HARRISON 1536

HEAT TREATING

Chicago's Oldest Commercial Steel Treating Plant

FRED A. SNOW CO.

1942 W. Kinzie St. • Tel. SEEley 2862

INDUSTRIAL ENGINEERING

Product Design to Complete Plant

EMERY C. FURRER

82 W. Washington St. Tel. CENTral 1451

COMMERCIAL DISCOUNT CORPORATION

Financing — Factoring

110 S. Dearborn St. • ANDover 5800

Architect-Engineering Services

for Chicago Industry

ARCHITECTURAL	STUDIES
MECHANICAL	ESTIMATES
ELECTRICAL—	PLANS
POWER	SPECIFICATIONS
STRUCTURAL	SUPERVISION OF
RAILROAD	CONSTRUCTION
UTILITY	

De Leuw, Cather & Co.

Andrew N. Rebori
Consulting Architect

20 N. Wacker Dr., Chicago 6, Ill.
Telephone Central 3302

Duffin Iron Company

Established 1876

Fabricators of Structural Steel

GENERAL OFFICES AND WORKS
4837-55 SO. KEDZIE AVE.
Chicago 32
Phone Lafayette 0732

CONTRACTING OFFICE
ROOM 1600—37 W. VAN BUREN ST.
Chicago 5
Phone Harrison 8813

RELIANCE TRAFFIC SERVICE

Established 1930

A COMPLETE TRAFFIC SERVICE
TO SHIPPERS

537 So. Dearborn Tel. HAR 1278

COUNSELING & TESTING

Executive and Sales Personnel

Leroy N. Vernon, Ph.D.
INDUSTRIAL PSYCHOLOGIST

THE PERSONNEL LABORATORY
LA SALLE-WACKER BLDG. • CHICAGO

LET US SHARPEN YOUR TOOLS

We specialize in Precision Grinding, External Grinding and Re-cutting. Send us your Cutters, Reamers, End Mills, Hobs, Saws, Broaches, Sectional Dies, Etc.
We Pick Up and Deliver
80 years' guaranteed service

Kirchman-Dierks Company
4653 W. Harrison St. MANsfield 1426



WHEEL CHAIRS

Surgical—Hospital
First Aid Supplies

V. MUELLER & CO.

Phone SEEley 2180

408 So. Honore St.
CHICAGO 12

ALLEY AND STREET PAVING

By Private Contract

METROPOLITAN PAVING CO.

Established 1922

155 N. Clark St. Chicago 1
Telephone FRAnklin 8496

of land on Narragansett avenue adjacent to its present property.

Dearborn Stove Company, 3254 Milwaukee avenue, has purchased a 5½ acre site on Pulaski Road between Bryn Mawr and Peterson road on which it will construct a 60,000 square foot building.

Hotpoint, Inc., affiliate of General Electric Company, is constructing a one-story addition at its Chicago Heights plant.

Texas Company has begun construction of a large machine shop building.

Tie-Tie Products Company, 2320 W. Logan boulevard, has purchased a two-story plant on the south side of Armistage avenue between Washtenaw and Fairfield avenues. Lang, Weise and Cella, brokers.

Supreme Products, Inc., 320 E. 21st street, manufacturer of screw machine products, has purchased land at 2216 Calumet avenue on which it will construct a plant. Victor Charn, architect.

Reynolds Electric Company, 2650 W. Congress street, will construct a 50,000 square foot building at 3000 River road, in River Grove, Ill.

Bauer and Black, 2500 S. Dearborn street, manufacturer of surgical dressings and a general line of medicinal supplies, is adding to its plant facilities. Battey and Childs, engineers.

Republic Drill and Tool Company, 332 S. Green street, has purchased property at the corner of Green street and Jackson boulevard.

Advance Metal Moulding Company, 2508 W. Huron street, manufacturer of metal mouldings, is building a plant near Addison, Ill.

River Forest Metal Cap Company is building a plant in Melrose Park into which it will move its entire operations. The new building will be a one-story brick structure containing 4,000 square feet of floor area.

United Manufacturing Company, 5737 Broadway, manufacturer of coin-operated machines, has begun construction of a plant at 3401 N. California avenue.

Payswell Products Corporation, 327 S. LaSalle street, has purchased a building at 2144 Ashland street, Evanston, in which it will operate a general machine shop.

Oakland Products Corporation, a newly organized firm, will manufacture tools and machined parts in a plant in Glenview.

Frey Tool and Manufacturing Company, a newly organized manufacturer of coil winding machinery, is building a plant in Elmwood Park.

Duer Tube Bending Company, Pusheck road and Madison street, Bellwood, Ill., is building a 4,000 square foot addition to its plant.

Atlas Spring and Manufacturing Company, 228 N. Clinton street, will build

HART and WHETSTON

Established 1915

Factory Property Exclusively

SALE OR LEASE

Buildings Erected & Financed

SWITCH TRACK—DOCK

1 N. La Salle STA te 8270

Lang, Weise & Cella

Real Estate

Building Management

Insurance

308 W. WASHINGTON ST.

CHICAGO 6, ILLINOIS

RANdolph 2574

Commercial—Industrial Enterprises

Sold—Merged—Financed Anywhere

37 Years of Practical Experience

THE APPLE COLE COMPANY

53 W. Jackson Blvd. Chicago 4
Wabash 1128

STERNSTEIN BROS.

★

Manufacturers of Men's Clothing

★

500 S. Throop St. Telephone
Chicago 7, Ills. CANal 6780

LITHOGRAPHED LABELS

for All Purposes

FORT DEARBORN LITHOGRAPH CO.

2856 N. California Ave. CHICAGO 18
SPAulding 6745

STEEL DRUMS

Bought—Sold—Reconditioned

STERLING DRUM CO.

610 W. 81st St. CHICAGO 20
STEWart 1960

GRAPHITED BRONZE BEARINGS

Self Aligning and Self Lubricating

PILLOW BLOCKS

RANDALL GRAPHITE BEARINGS, INC.

609 W. Lake St. RANdolph 5860
Chicago 6, Illinois

The "ZEROSOFT" WATER SOFTENER

All sizes and types—Industrial—domestic. Brass self-cleaning mineral retaining screens used to prevent zeolite loss regardless of flow rate. Your industrial equipment rebuilt and capacities increased. Inquiries invited.

ZEROWATER SOFTENER MFG. CO.
4985 Elston Ave. Chicago 30 PENsacola 1223

SANDERSON & PORTER

ENGINEERS

AND

CONSTRUCTORS

S&P

a 22,000 square foot plant at 1801 N. Spaulding avenue.

Modern Water Equipment Company, 542 W. Grant place, has purchased a five-acre site near West Chicago on which it intends to construct a one-story brick factory containing approximately 12,000 square feet of floor space. The company manufactures automatic electric water heaters and water treating equipment.

New Tests Spot Executives

(Continued from page 14)

The executive person whose mobility is blocked, either by his own limitations or by those of the social system, must divert this energy into other channels. Ill temper, family bickering and the development of the feeling that the world is against him may reflect the re-direction of this potent energy demand.

9. **Realism.** As opposed to those who may be overidealistic and lack practical sense, successful executives are strongly aware of immediate realities and their implications. They keep their feet on the ground. They are interested in the practical, the immediate and the direct. Their inclination is to grapple with the realities in a forthright and energetic manner.

However, a too strong reality sense that does not find the realities in tune with the individual's ambitions may well leave a further sense of frustration and of the unpleasantness of reality. This happens to many executives who find progress and promotion too slow for their drives. The result is often a restlessness rather than activity, a fidgetiness rather than a well channeled aggression, and a lack of ease that may well disrupt many of their usual personal relationships.

10. **Relations with Others.** In general, the mobile and successful executive looks to his superiors with a feeling of personal attachment and tends to identify with them. His superiors represent for him a symbol of his own achievement and activity desires, and the successful junior tends to identify himself with these traits in those who have achieved more. He thus is very responsive to his superiors—the nature of this responsiveness of course depending on his idea of authority, and the extent to which his sense of frustration is present.

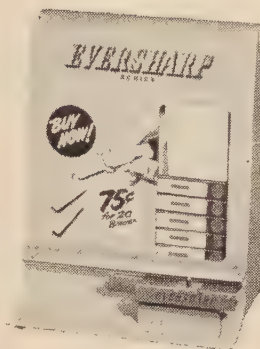
On the other hand, he looks to his subordinates in an essentially impersonal way, seeing them as "doers of work" rather than as people. This does not mean he is cold and treats them casually. In fact he tends to be rather sympathetic with their problems. But he still treats them impersonally, with no real or deep interest in them as persons. It is almost as though he viewed his subordinates as representatives of things he has left behind, both factually and emo-

FOR DISPLAYING • DISPENSING • DEMONSTRATING • SERVICING

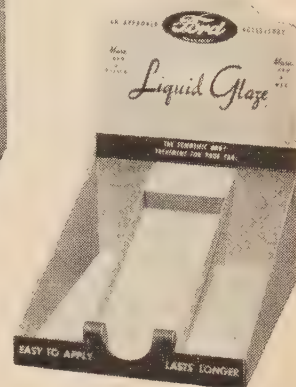
MODERN METAL UNITS FOR ADVERTISING AND MERCHANDISING



Cabinets • Racks • Stands • Frames • Signs
CUSTOM DESIGNED FOR YOUR REQUIREMENTS



AMDCO units are daily displaying every type and size and shape of product for America's Great Merchandisers. Keep your goods in a Telling position, in Selling Condition with AMDCO displays.

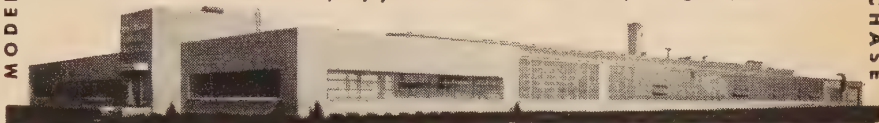


Write
on company letterhead for
MERCHANDISE
BOOK

AMDCO can design—and produce in market-blanking quantities

ADVERTISING METAL DISPLAY CO.

CHICAGO and NEW YORK; Reply to: 4624 W. Nineteenth St., Chicago 50, Illinois



YOUR PRODUCT PERMANENTLY AT THE POINT OF PURCHASE

THE GREAT ATLANTIC AND PACIFIC TEA COMPANY

ILLINOIS TRAVELING MEN'S HEALTH ASSOCIATION

*Broad and Liberal
Health and Accident Insurance
For All Preferred Risks*

R. F. CAVENAUGH, *Secretary*
332 S. Michigan Ave.
Chicago 90, Illinois

CHICAGO STEEL TANK CO.

Steel Tanks and Equipment

For

Oil—Water—Liquids or Solids

FIELD ERECTED OR INSTALLED
SMOKE STACKS—PLATE WORK
SPECIAL TANKS—AGITATORS
INDUSTRIAL TANKS—CHEMICAL TANKS

CHICAGO STEEL TANK Co.

6400 W. 66th St. Chicago 38 Portsmouth 8900

tionally. The only direction of his emotional energy that is real to him is upward and toward the symbols of that upward interest, his superiors.

11. *Attitude Toward Parents.* In a sense the successful executive is a "man who has left home." He feels and acts as though he were on his own, as though his emotional ties and obligations to his parents were severed. It seems most crucial that he has not in addition retained resentment of his parents, but has rather simply broken their emotional hold on him and been left psychologically free to make his own decisions.

Here is a case in point. A man in his early 30's and employed in a branch of a company, was being considered for transfer to the central office in another state. He was working satisfactorily in his present post. The psychological tests showed his excellent abilities but also his strong emotional ties to his parents which were binding and clearly limited his emotional freedom. In the new job situation it was felt this would be a distinct handicap and would put too low a ceiling on his potential promotability. These dependent attitudes had not previously been apparent.

He was again interviewed and directly asked if he would care to accept the job at the central office. He replied that it might be fine but first he would have to take a few days off to go home and consult his parents. He explained that he did not like to make such decisions without his parents' agreement!

Further interviewing disclosed that his parents were not financially dependent upon him and that the restriction was solely emotional. He had not lived at home for some time but in his previous job he had always consulted his parents upon any change of work and followed their advice. It was finally decided that if this man could not make decisions on his own life, he would not be potential executive material. He wasn't.

Watch Parental Ties

Test findings indicate clearly that those who have not broken this tie to their parents are either too dependent upon their superiors in the work situation, or are too resentful of their supervision—depending upon whether they have retained their dependency parental ties or whether they are still actively fighting against them.

In general the relationship to the mother has been the most clearly broken tie. The tie to the father remains positive in the sense that the father is viewed as a helpful but not restraining figure. Those men who still feel a strong emotional tie to the mother have systematically had difficulty in the business situation. This youthful emotional tie seems to interfere with the mature attitude of activity, progress, and channeled aggression. The tie to the father,

however, must remain positive—as the emotional counterpart of the admired and more successful male figure. Without this image, struggle for success seems difficult.

For those executives who work within the framework of a large organization where cooperation and group and company loyalty are necessities, there must remain feelings of dependency upon the father-image and a need to operate within an established framework. This does not mean that activity and aggression cannot operate or that the individual is not decisive and self-directional. It only means that he is active and aggressive within the framework of an already established and operative set of overall goals and procedures. For most executives this overall framework provides a needed guidance and allows them to concentrate upon their achievement and work. The progress of their division or department is their sole concern with only minimal worry for policy making of the entire organization.

Loyalty To Whom?

Those executives whose self-assertion is stronger and who unconsciously yearn for complete independence, will find it impossible to work within a framework of company policy established by superiors. Their feelings of loyalty are to themselves rather than to company policy which is the impersonal counterpart of the father-image. They regard their own words as law and beyond question. These feelings differentiate the executives who can cooperate with others to promote the overall policy of a company from those who in their own estimation must be the whole show themselves. These latter deliver a dreadful wallop when crossed, and it is these latter men who are occasionally responsible for the turmoils and black hatreds which rage in some departments of large organizations.

Clearly there are situations in which the independent, self-assertive person is of great value. But he should be distinguished in advance and placed only in such situations where these traits are of value.

The ability of an individual to work within a framework of company procedures and goals helps determine his suitability for certain jobs. For example, one man referred for testing had most excellent recommendations and had been a responsible army officer during the war. The test analyses showed outstanding abilities, excellent organizational capacities, decisiveness, and a concept of clear-cut future goals. He was not recommended for employment, however, on the basis of one feature of his test performance. The psychologists found clear attitudes of extreme self-assertion and a dislike of cooperative action.

Unconsciously, he viewed himself as a



"For prompt delivery of high quality Southern Illinois coal, and for courteous attention to your needs, you can depend upon CW&F...operators of the world's largest coal mine and producers of genuine Orient coal."

CHICAGO, WILMINGTON & FRANKLIN COAL COMPANY

332 South Michigan Ave., Chicago 4, Illinois



WE MUST be fire conscious always yet today more than ever. A fire now could not only destroy your property but be the means of wiping out your entire business.

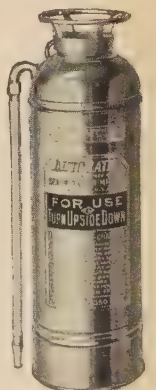
Adequate fire protection is, therefore, most necessary and such protection is still being offered by DIENER. Also a complete line of items for prevention of fire, such as "Perfection" Safety Gasoline Cans, "Perfection" and "Quick-Service" Oily Waste Cans and "Perfection" Excelsior Cans.

GEO. W. DIENER MFG. CO.

420 N. Monticello Ave.

Van Buren 7070

Chicago 24, Ill.



CHICAGO STREETS ARE
Cleared of Snow
WITH
ATHEY FORCE-FEED LOADERS



• The Chicago's loop and outlying business areas are now cleared of snow almost as fast as it falls.

Snow removal costs are reduced to a fraction of former method costs with the fast loading Athey Force-Feed Loader.

ATHEY PRODUCTS CORPORATION

Chicago 38, Illinois

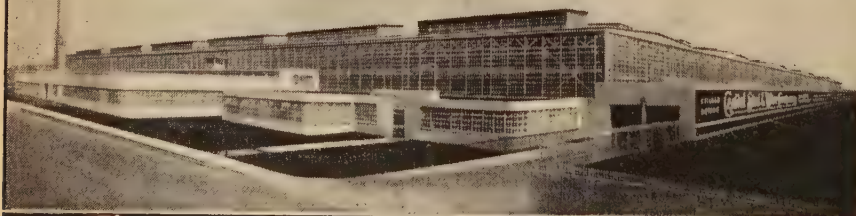


Rubber-Tired Trailers Force-Feed Loader
Forged-Trak Trailers MobiLoader

for
Immediate
Warehouse
Shipment
Call Republic
3000

**HOT ROLLED AND COLD
FINISHED STEEL·BRASS
AND COPPER PRODUCTS
ALUMINUM·STAINLESS
STEEL·WELDING WIRE**

ALLOY STEELS, BOILER TUBES AND FITTINGS, BEAMS, BARS,
CHANNELS, PLATES, IRON AND STEEL SHEETS, PLAIN, GALVA-
NIZED, ELECTRICAL AUTO, STAMPING, FLAT WIRE, SPRING STEEL
SHAFTING—ALL KINDS, SCREW STOCK, TUBING—ALL KINDS,
NAILS, WIRE, FLOOR PLATES, SAFETY TREADS, DRILL ROD.



Central Steel & Wire Company

OFFICES AND PLANTS

CHICAGO 80, ILL.
3000 West 51st Street
REPUBLIC 3000

DETROIT 12, MICH.
13400 Mt. Elliott Avenue
TWINBROOK 2-3200

CINCINNATI 16, OHIO
525 Township Avenue
AVON 2230

TELETYPE NUMBERS: CHGO 1269 • DET 33 • CIN 64

lone wolf operating aggressively on his own behalf. The organization considering hiring him was an established one with a long history of successful business procedures. Individual success within it depended upon the policy of cooperative action with associates, of a kindly but directive attitude toward subordinates, and upon an adoption of the company's overall objectives. The ex-army officer was a man with no concept of a superior's views or of coordinate action with others. He was therefore not recommended.

This finding, however, seemed to contradict his excellent recommendations and his army record. It was therefore decided to interview the people who had written his recommendation letters. In these interviews, it was found that his abilities as predicted were indeed excellent. No one questioned his capacities or his work excellence, but no one could get along with him. His former employer reported that they had to let him go because he could never work with his associates. His idea had to be accepted completely or not at all. Had he been the boss of the entire organization, he might have done well. But in any other position, he would resist cooperative action and become dissatisfied himself.

Detecting One's Traits

These eleven traits of successful executives are all intertwined. Various traits may be dominant over others; but they are all present in varying degrees in efficient business managers. But how are these traits dug out by the psychologists? How can they be detected in younger men being considered or groomed for promotion into the executive ranks?

Three techniques are used: (1) the Thematic Apperception Test, (2) directed interview, and (3) free association interview. The basic test is the first, referred to as the TAT. It was originated at Harvard as a psychological technique for exploring personality and getting people to project outwardly what they feel and believe inside. The TAT was then redesigned to explore personality for specific traits. This was done by the Committee on Human Development at the University of Chicago.

In the TAT, cards with specially-designated pictures are presented to applicants. The pictures used have already been thoroughly studied for normal and abnormal types of responses, so that the applicants' replies as to what they "see" there, can be accurately evaluated as to what they disclose of the underlying traits in the respondent. The responses tell the psychologist about the personal relations of the subject—something which the subject can no more hide in his answers than he can camouflage the color of his eyes.

The answers to the TAT pictures are evaluated by psychologists working "blind"—i.e., field staff men administer the test, and the psychologists back in the office draw the character analysis.

The directed interview arises from answers given to TAT pictures. Here, for further amplification and clarification, the candidate is asked to go through his answers to each of the TAT pictures. These replies provide checks on the stories told by the respondents.

Finally, prospective executives are interviewed by the free-association method. When the men tell about their own personal and family problems, further checks are obtained on the results from the other tests. More knowledge is obtained about the men's private lives and personal outlook, and how the new executive position might fit into their social needs. The time involved for the complete test is about 50 minutes, although the psychologist's analysis of the responses takes about five hours. In 103 cases thus far tested by this method the conclusions reached have not always jibed with the evaluations of the candidates by their superiors. In all cases of difference, we encouraged company officials to investigate letters of recommendation, etc. The outcome of further investigation by the superiors, however, has been to reinforce the psychologists' findings.

Vacuum Distilling

(Continued from page 20)

inorganic molecules of matter, as contrasted with the heavy oils, fats and waxes. And, even in the field of heavy molecules, other processing methods, in addition to distillation, may be used. The use of solvents to separate complex mixtures got a big boost recently when the M. W. Kellogg Company announced its Solexol process, which can be used to decolorize, separate, extract, concentrate and deodorize a wide range of fats, oils and similar materials. At present a number of plants are being built by various companies to use the Solexol method, which uses propane gas as a solvent. Swift and Company, for one, is building a new plant at Hammond, Ind., to produce a variety of products from fats and oils.

But Distillation Products considers high vacuum distilling to be a "flourishing business now on the verge of becoming an industry." The process is as fundamental and as wide in potential uses, the company believes, as catalytic cracking, polymerization or similar basic developments of this century. Perhaps the most exciting prospect of all, however, is that completely new products—of a nature that cannot even be visualized—will pour from the void of the vacuum still with its ability to fractionate substances formerly regarded as fixed.

EST. 1865

**MILLERS NATIONAL
INSURANCE COMPANY**

EST. 1876

**ILLINOIS FIRE
INSURANCE COMPANY**

Fire and Allied Lines

Automobile

Marine

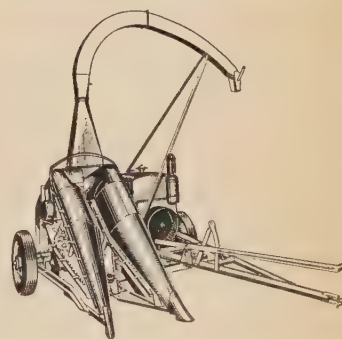
HOME OFFICE...CHICAGO

EASTERN DEPT....PHILADELPHIA

PACIFIC COAST...SAN FRANCISCO

SKYLINE Field Harvester

It's a row crop harvester, a forage harvester, a portable grinder. Chops hay, grinds grain, makes ensilage, shreds row crops. The Skyline with attachments saves labor and conserves feed. It's the modern way—one basic unit and three attachments. Write or phone for illustrated folder. Call Des Plaines 1323.



P. & W. Farm Machinery Co., Inc.

644 Pearson St.—Des Plaines, Ill.—P.O. Box 106

Do You Know—

We will make to your Specifications—

CLOTH APRONS

- *For Mechanics—Blue Denim, Hickory or Duck*

SPECIAL APRONS

- *Fire and Water Proof*

SPECIAL COVERS

- *Plain and Water Proof*

SPECIAL BAGS

- *Any Type Made of Canvas or Cloth*

TOOL KITS

- *Any Type Made of Canvas*

SHOWER CURTAINS

- *Cloth or Plastic*

FILTER BAGS • FLANNEL COVERS • ARM PROTECTORS

COTTON BUFFS and POLISHING WHEELS

SEND US YOUR SPECIFICATIONS ON ANYTHING MADE OF CLOTH OR CANVAS

ASSOCIATED BAG & APRON COMPANY

224 WEST ONTARIO ST. • CHICAGO 10, ILLINOIS • PHONE SUPERIOR 5809

STANDARD

HOT-DIP GALVANIZING SERVICE

SINCE 1913

**QUALITY WORKMANSHIP
A.S.T.M. SPECIFICATIONS
GUARANTEED ON ALL WORK**

**OUR DESIGN ENGINEERING
SERVICE WILL INSURE
LOWEST GALVANIZING COSTS &
IMPROVE YOUR PRODUCT**

**DELIVERIES TO YOUR
REQUIREMENTS**

Pipe, Structurals, Bars, Bands, Chains, Hackney
& Open-top Drums, Coils, Tanks, Tubs, Builders
& Railway Car Hardware, Castings, Forgings,
Stampings, Containers, Scullery & Packing House
Equipment, etc. Centrifuge Process Specialists
for Bolts, Rivets, Etc.

**DEALERS IN GALVANIZED STEEL
BANDS, BARS & SHAPES**

Phone NEVada 0456

Standard Galvanizing Co.

Galvanizers - Steel Merchants

2611-2619 WEST VAN BUREN STREET

CHICAGO 12

***MEMBER—AMERICAN HOT DIP GALVANIZERS ASSOCIATION, INC.**



TRANSPORTATION and TRAFFIC



THE Interstate Commerce Commission has found just and reasonable tariffs issued by rail carriers in Official, Illinois and Zone C territory increasing less-than-carload ratings of lower than fourth class to fourth class. The commission vacated their suspension orders and the increased rates became effective on January 31. The eastern railroads filed the tariffs making the adjustment in rates to become effective June 20, 1947. These tariffs were suspended by the I.C.C. and the matter was assigned for investigation in I. & S. Docket No. 5502. The principal commodities affected by the increase are iron and steel articles and grain and grain products.

I.C.C. Releases Two Important Rulings: Two important rulings on tariff interpretation have been handed down by the Interstate Commerce Commission. In Docket No. 29112, Bacon Brothers et al vs. Alabama Great Southern Railroad Company et al. (Fancy Farm Case), they found that where two commodity rates were in effect to Fancy Farm, Ky., one an erroneous rate and the other the correct rate, the correct rate was the applicable rate for the purpose of construct-

ing aggregate of intermediate or combination rates. However, where the erroneous commodity rate was the only commodity rate published to Fancy Farm, Ky., even though there were through commodity rates published to the ultimate destination, the erroneous rate was applicable in constructing aggregate or combination rates. The history of the proceedings began in 1941 with the publication of a tariff naming rates on fruits and vegetables to destinations in the Mississippi Valley and Southeastern territory. In the tariff, Fancy Farm, Ky., was erroneously assigned to the same rate group as six towns in northeastern Nebraska. The use of these erroneous commodity rates to Fancy Farm, Ky., with class rates beyond produced charges up to 50 per cent under the normal rates. The carriers based their charges on the through rate to the ultimate destination and the complainant requested reparation based on the charges which would have resulted from the use of the erroneous rate. The I.C.C.'s findings in the proceedings may be summarized as follows:

1. Where an erroneous commodity



"What makes women so hard to get along with, Pop?"

Payroll Calculators

IMMEDIATE DELIVERY

Don't stop to figure
just tip a card
and copy

One Hand
Operates
The Other
Writes

WITHHOLDING TAX CALCULATORS
Showing the Verified OAB Tax and the
Withholding Tax—Furnished in Weekly, Bi-
weekly, Semi-monthly & Monthly

PAY ROLL CALCULATORS
(Showing Regular Overtime & Total Pay
in 1/4 or 1/10 Hour Basis)

Meilicke Systems, Inc.
3458-A North Clark St., Chicago 13, Ill.



Careful handling by GREYVAN means
Carefree Moving for YOU

Expertly trained and thoroughly experienced in all phases of efficient handling of furniture and equipment, Greyvan personnel relieve you of all worries and details in connection with household and office removals and storage. Enjoy Greyvan's top-quality service at no extra cost. Phone Superior 4185 for complete information.

**OFFICE AND HOUSEHOLD
REMOVALS AND STORAGE**
Packing • Crating • Shipping

Sales Office: 500 N. Dearborn
Warehouse: 1217 W. Morse
(Near Sheridan Road)
PHONE: SUPERIOR 4185



GREYVAN STORAGE, INC. LIQUIDATOR GREYVAN LINES, INC.

WAR SURPLUS BARGAIN!

NEW — UNUSED FIRE EXTINGUISHERS

Get Real Fire Protection At Low Cost

*Underwriter approved.

*Ready to use—
3½ Gal. Capacity.



Put out those fires before they do damage! Regrets won't restore lost lives or property. These extinguishers made to Government standards. Carbon Tetrachloride Stored Pressure Type is easy to use. Mounted on wheels for easy handling. No maintenance problems.

*Present List Over \$200.00

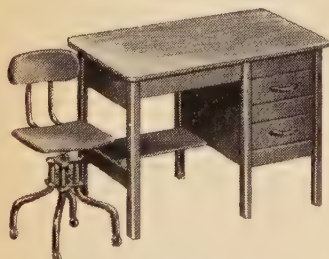
Our Price \$45.00

F.O.B. ILL. ORDNANCE DEPOT
MARION, ILL.

ACME EQUIPMENT CO., INC.

126-28 S. Clinton St. Chicago 6, Ill.
Telephone ANDover 3430

Space-Saver DESK and CHAIR



Compact 2 drawer steel desk for salesmen, typing or clerical work, or home use. Snag-proof edges; tempered masonite top 18" x 36"; 27" or 29½" heights. Attractive brown finish. Complete with steel posture chair, padded seat and back, to match....

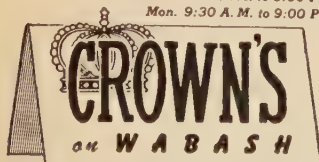
Desk alone \$33.95

Chair alone \$19.95

\$51.95

SEE Crown's unusually
complete display of
OFFICE FURNITURE

Hours: 9:30 A. M. to 6:00 P. M.
Mon. 9:30 A. M. to 9:00 P. M.



Div. of CROWN OFFICE SUPPLY CO.

222 So. Wabash Ave.

Between Jackson & Adams

PHONE: HARRison 7400

rate is the only commodity rate to a point in question, such erroneous commodity rate is applicable even though through class rates are in effect or through commodity rates are published to the ultimate destination.

- Where both an erroneous commodity rate and a proper or legal commodity rate are published, the proper or legal commodity rate is the applicable rate for the purpose of constructing aggregate or combination rates. Where two rates are published to the ultimate destination, the lower of the two, even though published in error, will apply as heretofore.

The other important report of the commission was in No. 29732, Dunn Sulphite Paper Company v. Grand Trunk Western Railroad Company. In this report they stated that the increased demurrage charges provided in their service order were the applicable charges for the detention of box cars during a strike at complainant's plant, although they were, in this instance, unreasonable inasmuch as the strike was beyond the control of the complainant. A supplement to the demurrage tariff, in effect at the time of the strike, reproduced I.C.C. Service Order No. 242 which provided for increased demurrage charges on box cars. The same supplement specifically suspended Rule 7 of the tariff, which provided for normal demurrage charges and Rule 9 which provided for the normal free time for unloading box cars, but did not suspend Rule 8 which provided that when a strike of its employees makes it impossible for consignor or consignee to load or unload cars, demurrage charges will be assessed at the rate of \$1.20 per car per day. The complainant contended that the provisions of this rule were not suspended by the service order. The finding that the charges published in the service order were the applicable charges although in conflict with the charges published in the tariff involve somewhat the same principles as were involved in the "Fancy Farm Case." In both instances the commission ruled that a tariff rate is not always the applicable rate. These decisions may lead to confusion as a shipper will be required to go beyond the tariff to determine whether a published rate is erroneous or is inapplicable because of an order of the commission.

New Combination Rule Suspended:
The Interstate Commerce Commission has suspended to August 31, 1948, Amended Rule 7 to Tariff of Emergency Charges No. X-162-A. The rule, which was to have become effective January 31, provided that where rates were made on a combination of separately stated rates, the maximum or specific increases named in Items 15 to 299 of the tariff would be applied to each individual fac-



SMALL GEARS

14 to 96 D.P.

Spurs • Helicals • Internals • Worm
Gearing • Bevels (Straight & Spiral)
• Ratchets • Screw and Worm
Thread Grinding

MADE TO ORDER ONLY

GEAR Specialties
2611 W. MEDILL AVE.
PHONE HUMBOLDT 3481



ACE

CARTON Corp.

CREATORS AND
MANUFACTURERS OF
UNUSUAL - CLEVER
SALES STIMULATING
Folding Paper Cartons
Display Cards
Counter Display Cartons

FACTORY & MAIN OFFICE
5800 W. 51st STREET
CHICAGO, ILL.
CRAWford OIL

W.W.WILCOX MFG. CO.

MANUFACTURERS
OF METAL TAGS,
NAME PLATES,
BADGES, STATE
AND MUNICIPAL
LICENSE PLATES

Telephone Central 3290-3291

564 TO 572

WEST RANDOLPH STREET
C H I C A G O

CERTIFIED SHELLAC

Bleached Refined
Wax-Free
Orange Gum
Shellac Varnish
Confectioners'
Glaze

Certified
SHELLAC

BRADSHAW-PRAEGER & CO.

3248 W. 47th Place

Chicago 32

LAfayette 2050

tor of the combination. The matter has been assigned as I. & S. Docket No. 5553 and hearings will be held March 23 at Washington, D. C. There were approximately 150 requests for suspension of the rule filed with the commission.

Motor Vehicle Lease and Interchange to be Investigated: An investigation of the practices of motor carriers, both common and contract, with respect to the lease and interchange of vehicles has been instituted by the Interstate Commerce Commission on its own motion. The investigation, assigned as Ex Parte MC-43, is to determine (1) whether the practices of the carriers with respect to the performance of transportation by the use of vehicles owned by others, the interchange of vehicles, and the leasing of vehicles to private carriers and shippers should be discontinued because unlawful or contrary to the public interest; and if any or all of the practices are to be continued; (2) whether (a) the renting of motor vehicles, with or without drivers, should be limited to long term leases; (b) the use of leased vehicles should be limited to a fixed percentage of the number of vehicles to which a carrier holds title; and (c) the carriers' practices should be governed by such rules and regulations as may be found reasonable. Hearings in the proceeding will be held April 19 at Washington, D. C.

U. S. Fights "Statism"

(Continued from page 24)

we take only those things that help to build our economies, and exclude luxuries which we cannot afford? Note the implications of Statism in the questions, a factor to which I shall allude a little later. There was unconscious irony in the queries as well, because while their representatives in Havana were asking the rhetorical questions, home governments of some of the countries were imploring the United States to impose export restrictions, admitting that they were politically too weak themselves to restrain the buying habits and demands of their peoples. It would be interesting to know to what extent the licensing regulations recently imposed for shipments to Europe were inspired by requests from overseas governments, rather than for the reasons given in the official announcement in Washington.

The Geneva Draft Charter did provide for QRs on imports into any country which was in balance of payments difficulties as determined by the International Monetary Fund, but after 1952, only on prior approval by the International Trade Organization. However, the underdeveloped countries strenuously oppose any restrictions on their rights to take whatever action their moods of the moment may dictate re-

YOUR

Complete

SOURCE

FOR HIGHEST QUALITY

ELECTRICAL PRODUCTS

At Englewood you'll find the leading lines of electrical equipment—
construction material, motors and controls, safety wiring devices, lighting fixtures, modern fluorescents for industrial plants, commercial properties, utilities, office and apartment buildings and home builders.

Serving

ELECTRICAL CONTRACTORS • INDUSTRIAL PLANTS
UTILITIES • APPLIANCE DEALERS

LARGEST STOCKS IN THE MID-WEST AREA

Take full advantage of our
FAST SERVICE FACILITIES



EXCELLENCE IN ELECTRICAL PRODUCTS
Englewood
ELECTRICAL SUPPLY CO.

CHICAGO 5801 S. Halsted St., Englewood 7500

ROCKFORD Rock River Electric Div., 124 N. First St., Rockford 3-5441

SOUTH BEND 325 N. Lafayette Blvd., Phone 4-1173

1819

1947



FRED J. SAUTER

Manager

COOK COUNTY DEPARTMENT

175 WEST JACKSON BOULEVARD

CHICAGO 4, ILLINOIS

Phone WABASH 6340

HYRE

Since 1912

Rendering guaranteed performance by Registered engineers, good service and quality workmanship, to industry.

MOTORS (All Sizes New and Rebuilt)

CONTROLLERS • REPAIRS • PARTS

WINDING • WIRING

HYRE ELECTRIC COMPANY

2320 OGDEN AVE.

CHICAGO 8

CHESapeake 6100

garding imports, attempting in this way to reserve for themselves what might easily prove to be a political as well as an economic weapon for the future. They invoke the principle of sovereignty, a powerful tocsin at any international gathering, capable of transforming even a sane argument into an emotional tirade.

While wishing to retain for themselves the right to impose QRs, the underdeveloped countries rely on the traditional most-favored-nation policy of the United States to protect them against retaliatory discrimination on our part. This confidence is a tribute, perhaps, to our world commercial leadership. But it does not ease the job of our negotiators at Havana, who are constantly aware of the fact that on their return they may face a querulous Congress, readily irritated during an election year. The issue of QRs was by no means settled when I left Havana recently, and it might easily prove to be the reef on which the conference will find itself stranded for additional weeks. To find a formula which will accommodate the legitimate aspirations of underdeveloped countries for further industrialization, and simultaneously prevent abuse for political or capitious reasons, is a task that so far has eluded our best technicians.

The other issue raised by nearly all of the underdeveloped countries—that of price support for raw materials—has fallen by the wayside, so to speak, of its own weight. Still, it has been interesting to note how some of the ideas advanced to meet temporary political problems in the United States have caught the imagination of opportunists elsewhere. There was the suggestion of Chile, for instance, that there should be a floor under raw copper prices in world markets, but a ceiling on copper wire—an extension into the international field of a price control theory that has not yet been fully discredited here at home, and a further evidence of the Statism to which I have already referred, and will again.

Speeches Slow Meeting

It would be a mistake if I left the impression that I can cover, even sketchily, all of the issues that have been raised at Havana. There was scarcely a line of the Geneva Draft that was not debated at length. So sensitive were some of the delegates that the simplest phrases were examined carefully for implications which might be considered subversive of a weak nation's dignity. Hour after weary hour was consumed in speeches made "for the record." Weeks were required to explain points of procedure that seem obvious. Delegates of the United States have been constantly attentive to our interests, assiduous in defense on vital issues, and above all, patient in exceedingly trying circumstances.

If I am to give a good overall resume of the conference in Havana, before proceeding to comment on other aspects, I can only touch on two other problems which were of more immediate concern to the United States than to most of the other nations represented.

The first of these arose in the debates over Article 12 of the Geneva Draft, which was the text covering investments. Those who studied the Geneva Draft will recall that several nations insisted on a footnote expressing for the first time in an international document, so far as I am aware, the theory that investments, whatever their origin, should be repayable in the currency of the recipient country—in francs, lira or pesos, or whatever. This is a dangerous doctrine, and one to which the U. S. could not subscribe under any circumstances without endangering all past investments overseas, and without prejudicing the whole field of foreign investment in the future.

A New Investment Theory

At Havana, oddly enough, Australia attempted to take leadership in laying down policy for foreign investments, and put forward the still more startling suggestion that the charter should provide that investors, governments or private individuals, purchase the currency of a recipient country rather than physical assets when they sent their money abroad. In the present state of world monetary confusion, this was an even more alarming theory than the proposal in the Geneva Draft, and to have permitted its appearance in an international agreement would have proven one of the most effective barriers to development on a private enterprise basis that I can conceive.

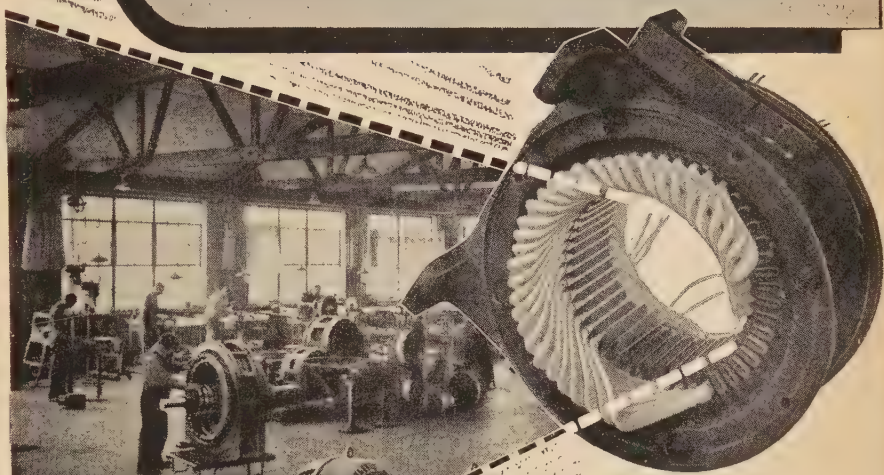
This proposal was opposed almost alone by the United States delegation. It was finally resolved in a new article on investments which may not be all we would like, but nevertheless puts our investors in a much more definitive position than they have ever been before. This is not the place for extended discussion of the reason for that belief, but unless limitations are placed on the new investment chapter in other parts of the charter, I feel sure those who have direct investments abroad will discover that they have the beginning of a code under which they will be able to demand more reasonable treatment than they have sometimes had heretofore.

The second consideration of greater interest to the United States than to most others that were represented at Havana, concerned our proposal to include within the charter those territories in Germany and Japan which are under occupation by countries that may become members of the ITO. Russia, though invited, is not directly represented at the Havana Conference. But it was amusing to

XL-WAY



...IT REFLECTS
THE CRAFTSMAN'S SKILL AND
LONG LASTING MATERIALS
THAT CENTER IN ITS MAKING



A Complete
Service . . .
FROM THE
SOURCE OF
POWER TO THE
DRIVEN UNIT

REPAIRS TO
ELECTRIC MOTORS
AND EQUIPMENT

INSIST
TODAY
ON
XL-WAY

EXCEL ELECTRIC SERVICE CO.

VIRGINIA 7220

INCORPORATED

2113-25 S. WESTERN AVE., CHICAGO 8, ILL.

G. A. ACKERMANN PRINTING CO.

Offset and Letter Press

LABELS • FOLDERS • BROADSIDES • CIRCULARS

**727-735 W. Van Buren St.
CHICAGO 7, ILLINOIS**

**54th Ave. and 14th St.
CICERO 50, ILLINOIS**

Telephone RANdolph 1732

EARL M. SCHWEMM AGENCY

Chicago's Outstanding Brokerage Office
for Life Insurance

INDIVIDUAL LIFE CONTRACTS:

A complete line of diversified contracts, from One Year Renewable Term to Retirement Annuities, including Single Premium Life.

ANNUITIES:

Premium Immediate, Single Premium Temporary. Also \$10,700.00 Annual Premium Retirement, Single Premium Deferred, Single Combination available.

GROUP CONTRACTS:

Group Life, Wholesale Group Life, Group Accident and Health, Group Hospitalization, Group Annuities. (With Guaranteed Rates).

INDIVIDUAL ACCIDENT AND HEALTH CONTRACTS:

PENSION TRUSTS a Specialty. Specially designed Group Annuity Contract for Profit Sharing Plans.

THE GREAT-WEST LIFE ASSURANCE CO.

Room 1030 — 135 So. La Salle Street

Chicago 3, Illinois

GEORGE H. GRUENDEL and COMPANY

Pension and Profit Sharing
Trusts
Insured or Self Administered
Employee Disability Programs
Deferred Compensation Plans

2040 Lincoln Park West
Chicago 14
BUCKingham 3146

"MAJESTIC"

AND

"THRIFTEE"

Undersink and Kitchen
Cabinets of Steel

ACME METAL PRODUCTS CORP.

RADcliffe 4076

136th & Western Ave., Blue Island, Ill.

FOR MORE THAN 39 YEARS—

We have served the nation with shoes for Men,
Women and Children.

We are proud of this long service made possible
by extraordinary value and service at moderate
prices.

FELTMAN & CURME

LOOP STORES

137 S. STATE ST.

134 N. STATE ST.

125 S. DEARBORN

25 NEIGHBORHOOD STORES

35 OUT OF TOWN STORES

watch slowly rising hair at the necks of delegates from Poland, Czechoslovakia and other countries which ring the Iron Curtain zone, when the proposal first was made. I do not wish to give the impression that the suggestion came from the United States as a provocative measure, or in a jocular mood. Our security forces consider that Japan and Western Germany must be given assurance that they can join the commercial society of free nations when they regain independent status, whatever Moscow's intentions. But it is a decision from which most European nations shrink, at present, and the question of competence was quickly raised, with urgent cables to home governments for instructions.

Custom Unions Discussed

Turning now from a discussion of some of the issues raised at Havana, I would like to comment briefly on two trends which became evident, and that are likely to have considerable effect on world business over the longer term.

The more important of these was concrete evidence by way of open discussion of custom unions or "free trade" areas. If the trend develops, we are likely to be dealing in the foreseeable future with such combinations of countries in Central America, in Northern South America, comprising a "greater Colombia" and composed of Colombia, Venezuela and Ecuador which have already attained a small degree of union, with a combination dominated by Argentina taking in Chile, Bolivia, Paraguay and Uruguay, and a Free Trade Area of the Arab States, among others. Preferences would be permitted between the members within each union or area, and there would be common tariffs for each area, as against the rest of the world.

Development of this type of thinking was especially significant because of the increasing indications that a customs union of all Western Europe is under serious consideration.

The customs union idea has in it elements both favorable and unfavorable to United States trade. To the extent that countries within each such area are strengthened economically, results could only be favorable. The whole idea of an ITO is to promote growth and the creation of real wealth everywhere, and history gives us many examples of expanded total trade as nations develop, even though the character of products dealt in may change.

But it would be easy to conceive of a free trade area or customs union which involved an industrialized country and several non-industrialized nations, whose banding together in an economic union might seriously affect our trade. The Empire Preference system which Britain and the Commonwealths expanded from its earlier form in the early thirties is, in effect, a customs union, and none

would deny that it has had serious repercussions on the United States. No similar combination involving an industrialized state and a group of non-industrialized satellites was under promotion in Havana, but it will be difficult to write language into a charter which would prevent such a move.

One consideration that may delay the formation of any great number of customs unions or free trade areas is the fact that commercial rapprochement usually involves some degree of political alliance, or leads to the necessity for some compromise with complete sovereignty. This is a step smaller nations, particularly, hesitate to take. But the customs union idea is one that is gaining adherents, and one that will bear watching and close study.

The other outstanding feature of the Havana debates was the insistent demand on the part of the underdeveloped countries for a development committee within the ITO. Too much emphasis, they claimed, was put on formulae for controlling current trade practices, not enough on encouraging new markets and new industries. The proposal is for the establishment of a group within the organization which would have the function of fomenting new undertakings of every kind in countries which wish to industrialize. To this group would be referred, for remedial action, all of the frustrations from which underdeveloped countries feel they are suffering. For instance, it is proposed that the committee would supply an engineering staff for surveys, plans for the exploitation of resources and establishment of industries, make demands for loans from the International Bank on behalf of a suppliant country, act as procurement agent for the purchase of equipment, furnish managerial talent, make market studies, and perform a hundred other services at the demand of any member—bureaucracy gone berserk!

Have-Nots Expect U.S. Cash

Wiser councils will prevail before a provision for a development committee finally is written into the charter—as I am sure it will be—and the activities assigned to it will be prescribed. What puzzled me as much as anything else at Havana was the blithe self-assurance on the part of these underdeveloped nations that funds will be forthcoming for the attainment of all their dreams. A suggestion that there would be a shortage of perhaps \$20 billions in capital funds in the United States this year for expenditures we consider to be essential, was answered often with a smile of unbelief. On one occasion it was answered with the statement that, of course, the United States should wait for the rest of the world to catch up before it extended its own development!

3% INSURED SAVINGS ACCOUNTS

*Earnings Paid to Savers
Without Interruption Since 1889*

CURRENT DIVIDEND

Money deposited on savings accounts before the 10th of the month earns as of the 1st.

ST. PAUL FEDERAL SAVINGS AND LOAN ASSOCIATION OF CHICAGO

Resources over \$12,000,000

2116 West Cermak Rd.—Chicago 8—CANal 2137

Chartered and supervised by United States Government



America's Leading Supply and Equipment House for Hotels, Restaurants, Clubs, Hospitals and Institutions

Here you will find the most complete selection of china, glass, silver, white goods, kitchen equipment and utensils, janitors' supplies, paper goods, furniture, floor coverings . . . and a staff eager to supply your needs in the most efficient manner possible.

ALBERT PICK CO., INC.

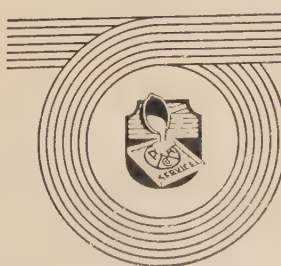
5033 PERSHING ROAD, CHICAGO 9 • PHONE VIRGINIA 2800



P & A

PLATE and MAT SERVICE

It is our belief that a business insistent upon factory cleanliness must be equally fussy over the quality of its product.



PARTRIDGE & ANDERSON CO.

712 Federal Street

Chicago, Illinois

Harrison 3732

Electrotypes • Nickeltypes

Matrice Makers • Stereotypers

3-Second CHECK CASHING

at your plant or office

CUTS DOWN ABSENTEEISM

**Costs Employee
Only
Small Sum
Per Check**

*—less than carfare
to and from bank!*



NO COST TO EMPLOYER

- Ends employees' need for relying on taverns to cash paychecks.
- Keeps employees on the job—fit for work.
- Saves workers money, time, inconvenience.
- No working time lost.
- 24-hour service—inside or outside premises.

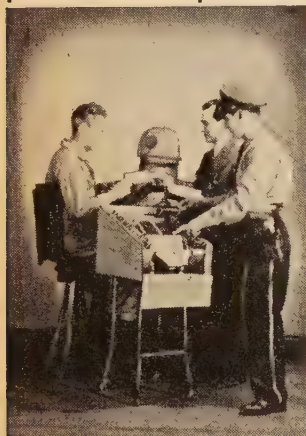
NORTH TOWN'S *Check Cashing Service*

Melvin Thillens, Pres.

2351 DEVON AVE.

SHEL. 5140-1-2

*Our big fleet of Armored Pay Trucks handles Payrolls
for most of Chicago's leading firms. Details on request.*



By now you will have noted that Statism was heavily emphasized at Havana. Much of this development is to be on the Socialist pattern, state-owned, state operated, with benefits accruing to all, doubtless including the political promoters. There was scarcely a nod of recognition toward individual initiative during the whole conference, and private enterprise was almost a total stranger. Only Canada and the Benelux countries—Holland, Belgium and Luxembourg—speak the same economic dialect that we use in the United States—five nations out of the 58 at Havana! All of the others employ words that are jargon in varying degree, each giving terms a meaning others may not completely understand—sometimes, I suspect, deliberately.

Further evidence of Statism appeared in the confidence that was displayed as to the possibility of preventing overproduction of raw materials, in the interest of price support. Regardless of previous failures in the case of wheat, for instance, producers of other commodities in which there is usually either a glut or a famine propose to put under new management the age-old laws of supply and demand, and to substitute political manipulation at the source on a worldwide basis to guard against price depressing surpluses. The idea may seem preposterous, and it would be, excepting for the earnestness with which it is advanced. No thought is there of producing wealth, only of its control!

Free Enterprise In Crisis

Any smugness that we may have developed over the superiority of our private enterprise system will disappear when the full extent and implication of Statism elsewhere in the world are fully understood in the United States. If there is any validity at all to the postulate that the United States cannot live unto itself in the future, then our system of individual initiative is engaged in a battle whose dimensions are not yet fully revealed. It will be a contest in which the single enterpriser is helpless, because he must deal overseas not as man to man in the manner to which he is accustomed and has become adept, but as man against a machine, whose remote bureaucratic controls can crush him almost at will. Only through joint and collective action will export suppliers in this country be able to deal with universal Statism elsewhere. Such a united front can come through voluntary and well planned organization, which I would vastly prefer, or under eventual political coercion in an emergency, when Statism abroad begins to apply its restrictive powers; but come it must. Never was the need so great in the United States for coordination of foreign trade groups into a single body, nationally representative, designed

1869

1948



JACOB PRESS' SONS

STEEL DUMP BODIES

PERFECTION HOISTS

LUMBER ROLL-OFF BODIES

WOOD & STEEL PANEL

AND STAKE BODIES

RAIL DETECTOR CAR BODIES

Repairs — Lettering — Painting — Steel Fabrication

501 W. 33rd St.

Chicago 16, Ill.

BOULEVARD 6182

to analyze day-to-day developments, and authorized to do something about them before they are set into a pattern, and it is too late. There is a level of interest common to all exporters, large and small. The small exporter may at times prove a source of irritation to the large. But the day which sees the defeat of the small exporter by frustration through inability to cope with bureaucratic red tape, wherever it is unwound, will mark the beginning of the end of private enterprise in our foreign trade. Overseas, it is almost dead now. I emphasize the point of greater cohesion among export groups because I have had unusual opportunity to study the need for it over the past few years.

Resentment Towards Us

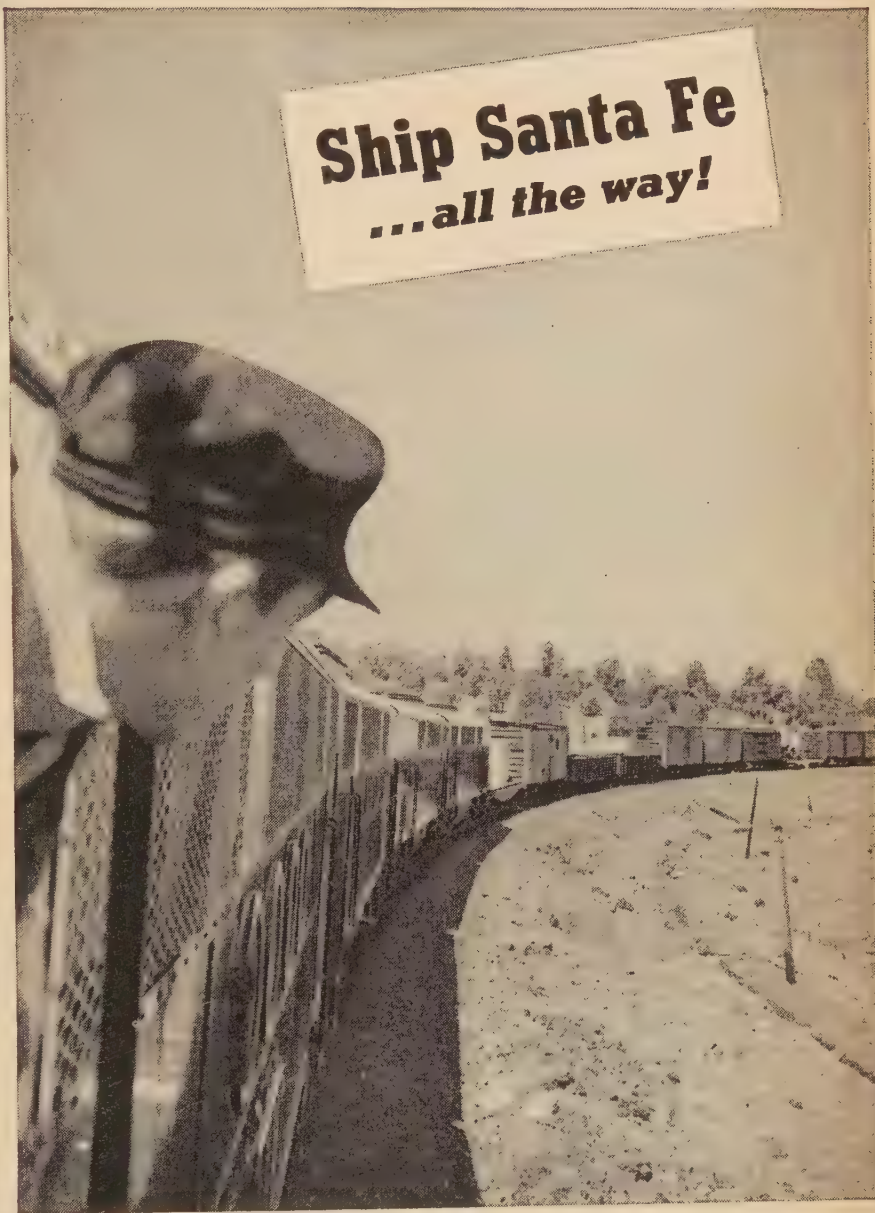
I have left until the end my comments on our hemisphere difficulties. The Havana Conference was convened at a time when the ERP—the Marshall Plan—was being revealed in its details. Deep in the mind of each Latin American delegate was a new resentment against the United States, unjustified but understandable. Why, they asked, rebuild Europe's economy to capacities greater than those of pre-war days, and brush off our dreams of industrialization? Have you forgotten so soon our support during the war, and your promises then? Are we being deliberately reserved as subject peoples, our resources indefinitely destined for absentee exploitation?

Hard questions, these, to answer, and they have not by any means been rationalized. Much of the intransigence displayed by the Latin American delegations at Havana doubtless was due to the implications in ERP, and Washington's seeming preoccupation with it. The forthcoming conference of American states at Bogota may assuage the feeling, but there is no balm in the Latin American Gilead at present.

I have been asked repeatedly what the outcome at Havana will be, and whether or not I think Congress will approve the result. My estimate of the number of nations which will sign the convention is from 40 to 45 out of the 58 represented. The nations which sign will represent more than 75 per cent of the world's normal trade. There will be some surprises in the list of abstainers, including several, perhaps, on this hemisphere. Some nations will sign with their fingers crossed, I am afraid. By relaxing some of the provisions it would be possible to obtain unanimity, and our negotiators have wisely resisted any such temptation, which would be a Pyrrhic diplomatic victory. A poor charter full of escape clauses for nations with weak economics would be no better than none at all, worse, possibly, because it would tie our hands while permitting others to discriminate against us at will. Whether or not Congress approves the final draft

For dependable freight handling

Ship Santa Fe
...all the way!



From cab of a giant Santa Fe freight Diesel locomotive trainman checks his train as it rounds a curve

Prompt car reporting made possible by Santa Fe's vast communication system, one of the largest in the world, enables us to keep in close contact with your carloads to assure on-time delivery. This is a big reason why more and more shippers are specifying routings via Santa Fe all the way!

Let your Santa Fe traffic representative help with your shipping problems.

T. L. BOTHWELL

General Freight Traffic Manager, Chicago 4, Illinois



THE GRIFFITH LABORATORIES

Makers of "PRAGUE POWDER," the "Safe, Fast Cure for
Smoked Hams, Bacon, and Ready-to-Eat Hams."

Makers of STERILIZED SPICES for home use.

We serve our Industries with new, scientific
methods and materials.

Phone LAFayette 7505

1415-31 West 37th Street

CHICAGO 9

SUPERFLAKE GRAPHITE PRODUCTS

Flake Graphite (All Grades)	Automobile Lubricants
Amorphous Graphite (All Grades)	Waterproof Grease
Graphite Greases (All Kinds)	Graphite Oils
Railroad Lubricants	Foundry Facings
	Paint
	Pipe Joint Compound
	Colloidal Graphite

Molduko Core and Mold Process

Write today for sample meeting
your own problem

SUPERIOR FLAKE GRAPHITE CO.

31 South Clark St., Chicago 3, Ill.

J. BEIDLER CAMP & Co. INDUSTRIAL SPACE

for every Purpose

Will Build to Suit

139 N. CLARK ST.

RANDOLPH 0763

CHICAGO 2, ILL.

HANNIFIN

PNEUMATIC AND HYDRAULIC PRODUCTION TOOL EQUIPMENT



Pneumatic and Hydraulic Cylinders • Air Control Valves • Pressure
Regulating Valves • Pneumatic Arbor Presses • "Hy-Power"
Hydraulic Riveters • Hydraulic Straightening Presses • Hydraulic
Forcing Presses • Hydraulic Platen Presses • Pneumatic Presses •
Air Operated Vises • Pneumatic and Hydraulic Molding Presses •
Special Pneumatic and Hydraulic Machinery

Descriptive literature sent upon request

HANNIFIN CORPORATION

1101 South Kilbourn Avenue • Chicago 24, Illinois

depends, I think, on how good a document emerges.

Even under the best of circumstances exporters in the United States will be an unhappy lot over the next few years. There will be plenty of orders, to be sure, ERP alone would seem to insure that, but they will not be healthy orders. No solid pattern of trade development can emerge. The very success of ERP demands that there be diminishing shipments from the United States so that those from Europe and elsewhere may increase until the world once more is in balance. Our exporters are in the position of one who finances his competitor to enable him to share a market, in the hope that future stability will promote development in which both eventually will prosper.

With a good charter to circumscribe world commercial rehabilitation, insuring non-discriminatory treatment for all and an expansion of development so that total trade tends to increase, exporters in the United States will have some assurance that the sacrifices they may be called upon to make meanwhile, in the disorganization of markets, will be temporary. Their future will be more secure, and the current period of uncertainty may then seem to have been worth while.

While Congress finally must make the decision, tolerance and great wisdom will be required of all our exporters in the interim. It will not suffice to say that we have the money, and therefore call the tune. Acceptance of a good charter will demand business statesmanship of the highest order, with much new planning and orientation.

The alternative, if Havana is any criterion, is complete commercial chaos, worldwide, and an isolationism for the U. S. new in type, because it will be externally applied, rather than inspired from within our borders.

Industry's Worst Waster

(Continued from page 21)

health program providing all of the services listed above enabled one New York firm to cut absenteeism in half. The program cost \$400,000, but in the long run it actually saved \$1,500,000 in lost time, to show a net profit annually of \$1,100,000. Reports from 1,625 companies indicate that health programs accomplished an average annual saving of \$30,510 for concerns employing 500 or less.

A survey by the National Association of Manufacturers in 1941, among plants having 500 or fewer workers further disclosed that those with health programs had 62 per cent fewer cases of occupational diseases, about 45 per cent fewer accidents, about 30 per cent less

absenteeism, compensation premiums, and labor turnover. The U. S. Public Health Service has some of its own statistics which show that an annual investment of \$8 per man in industrial hygiene should yield the average company about \$12, or a return of 150 per cent.

While a well-designed industrial health program can reduce absenteeism, at a distinct profit to the company which provides it, on-the-job care will not solve the larger sickness problem which confronts industry. For one reason, the great majority of man-killing physical and psychological ills are beyond the province of industrial medicine. Secondly, plant health plans are seriously limited by the inadequacy of basic medical research. Like a sled hooked to a truck, industrial medicine follows, it can never lead research. The plant doctor can utilize sulfa drugs and penicillin to conquer infection, blood plasma for traumatic shock, and vitamins for nutritional deficiencies, but his hands are tied in those phases of industrial medicine that have not received adequate research.

Four-Fold Attack

It is thus apparent that industry's health problem will not be wholly solved until the nation's health problem has been conquered. To accomplish the larger objective, progress must be made on many fronts: One, increased medical training and research to provide the weapons for combatting social and industrial ills; two, the expansion of plant health programs to enable medical research findings to be practically applied in industry; three, adequate hospitalization and medical care plans for the average industrial worker; and, four, increased rehabilitation work to return the physically and mentally disabled to active participation in industrial production.

Right now, industry is contributing heavily to exactly this sort of an attack against the sickness problem. It is a co-operative program built around New York University's Bellevue Medical Center. Industry, medicine, and the city are jointly promoting a campaign against sickness, both on the national and the industrial level. For its part, the City of New York has appropriated \$27,000,000 to rebuild its famed Bellevue Hospital. New York University has undertaken the construction of new medical buildings adjoining the hospital. And, to underwrite the costly program, industry—together with N.Y.U. alumni and the public—are currently raising \$15,575,000.

As plans now stand, the revitalized medical center will stage a four-fold attack against illness. By providing space, equipment, and funds with which qualified research personnel can work, the center will begin work on heart diseases, pediatrics, surgery, microbiology, and such other medical problems as the com-

Ship and Travel by American Ships

There's an old saying that foreign trade follows the flag. Under the famous house-flag of the United States Lines Company, a great fleet of new, fast freighters now offer regular service between four Continents . . . furthering the interests of American exporters and importers . . . building up American foreign trade.



**All under
one flag**

UNITED STATES LINES

United Kingdom • Ireland • Continental Europe

★

ORIOLE LINES

AMERICAN FRANCE LINE

AMERICAN HAMPTON ROADS-YANKEE LINE

*Ireland • England • France • Spain • Holland
Belgium • Germany*

★

AMERICAN PIONEER LINE

*Hawaii • Philippine Islands • Japan • China
French Indo-China • Russia in Asia • Australia
New Zealand*

United States Lines Company

327 SOUTH LA SALLE ST., CHICAGO Tel.: HARRison 5880

Baltimore.....1701 O'Sullivan Bldg.
Boston.....563 Boylston St.
Detroit.....905 Majestic Bldg.
Los Angeles.....715 W. 7th St.
New Orleans.....Lykes Bros. S. S. Co. Inc.
New York.....One Broadway
Norfolk.....200 East Main St.

Philadelphia.....Bourse Bldg.
Pittsburgh.....Union Trust Arcade
Portland, Ore.....Col. Basin Term.
San Francisco.....141 Battery St.
Savannah.....South Atlantic S. S. Co.
Seattle.....Spokane St. Wharf
Washington, D. C.....912 15th St., N.W.

ECONOMY FUSE & MANUFACTURING CO.

Economy	Renewable Cartridge	Fuses
Eco.	Non-Renewable	Fuses
Arkless	Mechanical Indicating	Fuses
Clearsite	Plug	Fuses

GREENVIEW AVENUE AT DIVERSEY PARKWAY
CHICAGO 14, ILL.

TELEPHONE BUCKINGHAM 6300

TIME TESTED ELECTRICAL FUSES

SERVICE AND QUALITY SINCE 1911

BEDS • METAL AND WOOD

Bedsprings, Box Springs, Cots, Rollaways,

Double Deck Bunks, Hospital Beds,

Bedroom Furniture—Steel and Wood.

HOSPITALS • HOTELS • SCHOOLS • INSTITUTIONS

SUPERIOR *Sleeprite* CORPORATION

CONTRACT DEPARTMENT, 2219 SOUTH HALSTED STREET, CHICAGO

SEELEY 2765

THE HAINES COMPANY

CONTRACTORS

FOR

VENTILATION AND AIR CONDITIONING

DUST AND FUME REMOVAL SYSTEMS

MATERIAL CONVEYING

SHEET METAL FABRICATORS

WELDING

1931 W. LAKE ST.

CHICAGO 12

mon cold, malaria and pneumonia. Through special research studies of industrial health problems, the center will foster close cooperation between medical science and industrial management. A Laboratory of Research Toxicology has already begun studying the effects of chemical compounds on personnel engaged in their production and utilization. The laboratory is part of a larger Institute of Industrial Medicine which will conduct in-plant and laboratory studies on such subjects as: the effect on workers of heat, moisture, air circulation, and air pressures; physical and psychological reactions to hours of work; bodily and mental strains; inefficiency, fatigue and adaptability. Such a co-operative program of industrial-social-medical research is unique and it promises a wealth of information that may be applied profitably by industry throughout the nation.

To encourage more adequate industrial health programs on the job, the center will serve industry directly by assisting individual concerns in setting up and operating such programs. In so doing, the center will make available its personnel and facilities to cooperating plants. Pre-employment and periodic on-the-job medical examinations will be conducted at the center or at plants. Skilled physicians and research specialists will visit individual plants to help insure safe and healthful working conditions; research items will be sent out to investigate specific in-plant health problems.

Group Medical Care

Another phase of plant health, outside the scope of industrial medicine, is hospitalization and personal medical care. In this regard, the average, middle class worker is in a class by himself. Unlike the prosperous individual who can afford private medical care and the very poor who utilize free clinical care, the factory worker is in the unique position of being too wealthy for charity care and too poor for private care when seriously ill. Thus, the center will institute a new "Group Practice Medical Unit," offering complete but economical medical service to wage earners. When illness strikes, the worker will be assured the services of medical specialists, plus adequate hospitalization. The medical unit will be integrated with existing medical care plans in order that full benefits, beyond the scope of such plans, will be available to members.

The direct drains on worker productivity caused by sickness are serious in themselves, but, perhaps even more serious is the indirect drain on national productivity caused by those who want to work but are prevented by physical or mental handicaps. Before the war, it was estimated that some 23,000,000

persons were partially handicapped by mental disorders, accidents, heart disease, rheumatism and arthritis.

With proper attention, many of these unproductive individuals can be rehabilitated and returned to full usefulness in industry and business. It has been estimated by the Bureau of Labor Statistics that from 5,000,000 to 7,000,000 impaired workers could be placed into industrial occupations. The Office of Vocational Administration of the Federal Security Agency indicates that of 43,997 persons undergoing vocational rehabilitation, 90 per cent were unemployed and 22 per cent had never worked. The majority of these persons were supported by public funds at an annual cost of from \$330 to \$500 each. With rehabilitation (at roughly \$300 per case), average earnings increased more than tenfold. For its contribution to this problem, the medical center, operating on the principles recommended by the Baruch Committee on Physical Medicine, will soon begin construction of a special building where handicapped individuals will be housed and rehabilitated.

No Easy Solution

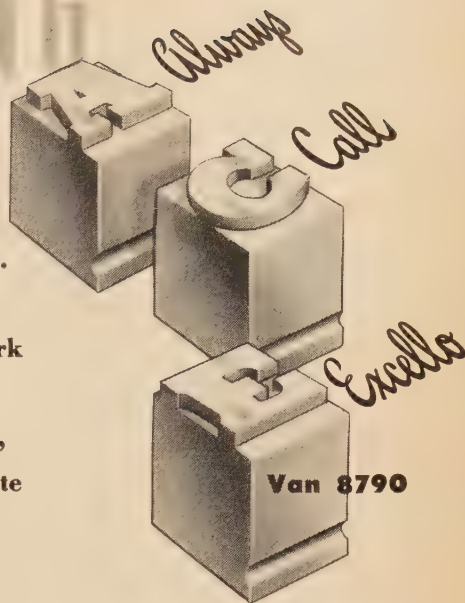
Obviously, Bellevue Center is not the complete answer to our sickness problem. It is anticipated, however, that this project will serve as a model for similar plans throughout the country. The center is one evidence of a growing awareness of the huge cost of illness to individuals, to industry and to the nation. The March of Dimes, the Runyon Cancer Drive, and numerous other campaigns have aroused public interest in the problem. According to a 1946 Gallup Poll, 85 per cent of those polled favored a federal appropriation of \$100,000,000 to battle tuberculosis and heart disease. Eighty per cent were willing to pay higher taxes, if necessary.

Certainly, New York's Bellevue project is an unmistakable indication that industry is aware of the tremendous sickness problem and its business implications. Progress toward a final solution of the problem will depend upon many factors. Health programs are constant political fodder in Washington. Several medical and health measures are now in the Congressional hopper, but their outlook is, at best, uncertain. Meanwhile, industry in grappling directly with the problem is adopting a realistic attitude toward a scourge that annually extracts a tremendous toll in lost production and crippled bodies.

It is significant that industry through its vigorous drive against on-the-job accidents cut down such accidents by almost 50 per cent between 1930 and 1947. It is altogether possible that industry—acting as vigorously on another front—may in the future accomplish as much against sickness.

PRINTING

... for **E**xcello provides the "know how" to assist you in organizing your art and copy ... determining your method of printing ... producing your work economically and quickly. Publications, catalogs, booklets, direct mail from black and white to full color ... Now over one million impressions a day.



WRITE US ON YOUR COMPANY LETTERHEAD FOR A SUPPLY OF THESE FREE, PERSONALIZED MEMO PADS



Excello Press Inc.

LITHOGRAPHERS • PRINTERS • BINDERS

400 NO. HOMAN AVENUE, CHICAGO 24, ILL.



WE INVITE YOUR INQUIRY FOR SOLENOID VALVES

Incorporated features of design in the new Henry Solenoid Valves have resulted in greater compactness, more rugged construction, longer life, and easier installation and field service. Steel body valves are available for ammonia and other fluids, non-corrosive to steel; brass body valves can be furnished for "Freon," methyl chloride, water, air, oil, gas, etc. Tell us about your problem in detail so that proper valve recommendations can be made.

HENRY VALVE COMPANY 3260 W. GRAND AVENUE CHICAGO 51, ILLINOIS

Control Devices, Valves, Driers, Strainers and Accessories For Refrigeration and Air Conditioning and Industrial Applications.

Fun Rothen Stern

★
**A RESTAURANT
OF UNCHANGING
CHARACTER . . .**

- ★ Times have changed but not at RED STAR INN, Chicago's famed, quiet, homelike restaurant.
- ★ It reminds one of the OLD WORLD. Since 1899 RED STAR has been a mecca for men and women who relish a real finely cooked meal, served graciously with zesty Wine and beer.
- ★ Among the notables who felt at home here were Julius Rosenwald, Charles Wacker, Oscar Mayer, Carter Harrison, Flo Ziegfeld, and a host of others.
- ★ Visit RED STAR INN—bring the entire family for truly remarkable dining.

CARL GALLAUER, Founder
WHITEHALL 9637

The Red ★ STAR INN
1528 N. CLARK ST.
Corner Germania Place
CHICAGO 10, ILLINOIS

**A CHICAGO LANDMARK
FOR GOOD FOOD**



Lunch, Dinner, Supper
GAME IN SEASON
2636 N. Clark St., Chicago 14
DIversey 7930

Jim Ireland's 42nd Oyster Season



SEA FOOD at its BEST
Clams • Lobsters • Scallops • Frog Legs
and 18 Varieties of Fish...
Expertly Cooked and Served...
Reasonable Prices
Dinners from \$1.35
A La Carte from 75c
Midnight Lobster Suppers
Appetizing Cocktails—Free Parking
Open Every Day 12 Noon to 2 A. M.

632-4 North
Clark Street
Del. 2020

New Products

Electric Home Heating

Apropos of the shortage of most heating fuels, the United States Rubber Company of New York has announced the development of a new radiant heating panel which generates heat in the ceiling. The panels, called "Uskon," are heated by a conductive rubber resistance element. Although rubber is normally an insulator against electricity, the new panels reverse the normal chemical nature of rubber to make it conduct electrical current. U. S. Rubber believes that with the panels "millions of American homes of the future will be heated more efficiently and economically with electricity instead of oil, gas and other fuels."

Fire Extinguishing System

American-LaFrance-Foamite Corporation, Elmira, N. Y., has introduced a new carbon dioxide fire extinguishing system designed for industrial locations requiring localized or total flooding and for rotating electrical units requiring a sustained discharge of carbon dioxide. The new system, according to the manufacturers, automatically shuts off power units, closes windows and doors when

fires start, but only after sounding an alarm to permit employees to leave safely.

Individual Heat Control

A new device, called the "Thermo-Matic Register," for controlling individual room temperatures in homes using forced warm air heating systems has been developed by the Dole Valve Company, Chicago. The new registers are designed to prevent "easy to heat" rooms from overheating before other "harder to heat" rooms reach a desired temperature.

Hand-Size Motor

A new fractional horsepower motor, small enough to fit in one's hand, has been developed by the T. C. Smith Manufacturing Company, Springfield, Ill. It is said to be particularly suited for coin machines, directional antennae, and other applications benefiting from a motor which at rated voltage has a stalling torque of 75 inch-ounces. The motor is constructed of aluminum and has a built-in gear train.

Quick Pickup

For rapid pickup jobs, the Frank G. Hough Company, Libertyville, Ill., has designed a new "Payloador Buggy," a gasoline-engined hauling unit. The loader provides rear-wheel steering, a short wheelbase, and has an over-all height of five feet, eight inches. It has a load capacity of two cubic yards; hydraulic power operates the dumping mechanism.

Gas-Fired Incinerator

A domestic gas-fired incinerator, said to embody a new principle for disposing of all garbage and rubbish with a dehydrating down-draft action, has been introduced by the Electrocap Mold Company, Pittsburgh, Pa. The new "Gar-Disposal," following five years of development, is said to provide sanitary, convenient, economical and odorless operation.

Paper-Tape Advertiser

Advertising and sales promotion by the spoken word is the aim of a new magnetic paper tape playback machine, developed by Magnecord, Inc., Chicago. The advertising device, called "AudiAd," the company believes, could be used in a department store to announce merchandise available on each floor, in vending machines to voice a short sales talk, in service stations to give weather reports, and in hotel lobbies and railroad stations to provide a variety of city information at the press of a button.

Mobile Gas Tanks

A mobile "service station," designed to service mechanized equipment on con-

Shut Downs Are Costly!

Use DAGGETT BALL
Bearing Loose Pulleys

Order Today and Save	Time in Oiling
	Lubricants
	Replacements
	Friction Losses
	Trouble Losses

Chicago Pulley & Shafting Co.
17-23 N. Desplaines St., Chicago 6

FAMOUS FOR FINE



SEA FOOD
Gene NUFFER'S

Restaurant

Under New Management of G. ALLGAUER
Finest Steaks — Chops

6666 RIDGE AVE. SHELDrake 9787
CLOSED MONDAYS • NO AMUSEMENT TAX

struction jobs and in other out-of-the-way places, has been introduced by Jax, Inc., Pittsburgh, Pa. The new unit, anchored on a 21-foot trailer, is eight feet high, and carries 700 gallons of oil and grease and 60 gallons of water or antifreeze.

Concrete "Enamel"

A new protective coating for concrete floors, said to give the protection of full rubber base enamels, has been developed by the Wilbur and Williams Paint Corporation, Boston, Mass. The one-hour drying concrete "enamel," according to the company, reduces accidents from skidding and would cost a home owner about one cent per square foot.

Oil-Gas Burner

A new "Jetronic Oil Burner," which converts oil into gas and is said to average better than 90 per cent efficiency, has been introduced by Consolidated Industries, Inc., Lafayette, Ind. According to the company, the new burner is expected to cut fuel-oil consumption for heating small homes by 50 per cent. Oil flows into a firing head where it is mixed with air, then heated over a baffle at 1,000 to 1,600 degrees, Fahrenheit, and, finally converted into gas, is forced through jets into the combustion chamber.

"Glass" Conveyor Belt

A hot material conveyor bent employing glass fabric rather than the more conventional cotton fabric has been developed by the B. F. Goodrich Company, Akron, Ohio. According to the company, the advantage of glass fabric is its resistance to loss of carcass strength under high temperature, whereas cotton fabric loses strength rapidly under severe operating conditions.

Electric Eraser

Chicago Wheel and Manufacturing Company, Chicago, has introduced a "Handee" electric eraser, which is said to enable clean, fast erasing on all types of drawing paper. The light-weight, electrically powered unit is shaped and balanced to fit the hand and is said to handle as easily as a pencil only with less fatigue.

New Control Mechanism

A new motor-driven business management machine, said to permit more efficient control over production, inventory, purchasing and other plant operations, has been developed by the Spiral Manufacturing Corporation, Chicago. "Chart-O-Matic" is a motor-operated graph chart on rollers. Finger-tip control permits the chart to be rotated in either direction for posting or review by a plant manager.

Inexpensive Electric Eye

A low-priced "Electric Eye Annunciator Unit," designed for protection

The ROMANTIC IVANHOE



7th Wonder of Chicago

The Ivanhoe Restaurant, named after Sir Walter Scott's immortal story "Ivanhoe" is reminiscent of a day long past when men loved, lived and played hard.

Strolling from room to room is like passing through the glorious enchantment of long ago. The Catacombs with its wierd passages and haunting skeletons, Friar Tuck's Cellarage and the Dungeon Bar, the Black Knight's Inn, and Sherwood Forest are but a few of the attractions of this interesting Supper Club which makes an evening here adventurously different.

CUISINE . . .

Our chefs are noted for creating UNUSUAL dishes that appeal to the epicurean. Marvelous food—DELICIOUSLY PREPARED. FULL COURSE DINNERS FROM \$2.00. NO COVER OR ADMISSION CHARGE.

ENTERTAINMENT . . .

DELIGHTFUL—arranged to please the most divergent tastes. DANCING to music of our most popular Orchestras. Delightful Outdoor garden trout stream . . . FIVE distinctive BARS and KING RICHARD'S Playhouse for private parties.

3000 N. Clark St.

Graceland 2771

ONLY 10 MINUTES FROM THE LOOP

We are manufacturers of PHARMACEUTICALS and SPECIALTIES

IN BULK OR IN FINISHED PACKAGES

Consult us about any item you wish to add to your line. We manufacture according to your own formula, or we can submit one of our own for your approval.

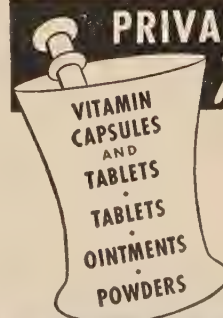
LIQUIDS
LINIMENTS
OINTMENTS
POWDERS
CREAMS

VITAMIN PRODUCTS
TABLETS—(any shape or size)
EFFERVESCENT TABLETS
EFFERVESCENT SALTS
EMULSIONS
ETC., ETC., ETC.

SAVOY DRUG AND CHEMICAL COMPANY

(Incorporated 1905)
20 SOUTH PEORIA STREET
CHICAGO 7, ILLINOIS, U. S. A.

PRIVATE LABEL Products



Pharmaceuticals and vitamin products made to your specifications in our sun-light laboratories. Furnished bulk or packaged.

Inquiries Invited

Standard Pharmacal Co.

OF CHICAGO
PRIVATE FORMULA MANUFACTURERS
847-853 W. JACKSON BLVD. CHICAGO 7, ILL.

*Whenever
You Call On*

KEYSTONE
STEEL & WIRE CO.

Stop at
Hotel Pere Marquette

PABST BREWING
COMPANY

Stop at
Hotel Pere Marquette

PEORIA
CORDAGE CO.

Stop at
Hotel Pere Marquette

Central Illinois' Largest and Finest

**HOTEL PERE
MARQUETTE**

500 Rooms • 500 Baths
Jerry B. Gordon Management
PEORIA • ILLINOIS

Screw Machine Products

**NICOD
MANUFACTURING CO.**

AUTOMOBILE HEATER FITTINGS
LIGHT MANUFACTURING
RADIATOR AIR VALVES

1900 N. KILBOURN AVE.
CHICAGO 39

Telephone SPAULDING 5800

**"GASWELD"
WELDING EQUIPMENT**

Welding — Cutting and
Machine Cutting Torches

Complete Line of Accessories
Regulators

"Wall" Oxygen and Acetylene

WALL CHEMICALS DIVISION OF

The Liquid
CARBONIC CORPORATION

3100 S. Kedzie Ave. BISHop 7373

and convenience in homes, offices, and factories, has been developed by De-Tec-Tronic Laboratories, Inc., Chicago. The new unit offers the advantage of compensating for changes in surrounding light and eliminates frequent adjustment.

ANCIENT ART

(Continued from page 16)

stenographer like an ordinary typewriter; but the machine punches a code on a tape instead of turning out conventional copy. The tape is then fed into the second machine, which automatically produces justified copy. Fairchild Camera and Instrument Corporation is working on the Lithotype, a machine said to type-write copy that looks exactly like type set by a printer.

Type Is Photographed

The product of these glorified typewriters, of course, cannot be placed in a printing press like type. An intermediate photographic step is necessary. For conventional letterpress printing, a photo-engraving is made of the specially type-written matter, and the engraving is used in the press. For offset work, a negative is similarly made from the copy, and an offset plate made from the negative. But the typewriter-like machines cost far less to operate than do automatic typecasting machines, and a large volume of research activity is being devoted to simplifying and cutting the costs of the subsequent photo-mechanical processes.

One cost-cutting development is embodied in the "packaged printing plant" that the William J. Higgins Corporation is putting on the market. The Higgins process (which was developed with Farwell W. and John H. Perry, Jr., of Western Newspaper Union) has been used to turn out weekly newspapers in Florida. The process starts with the preparation of copy in one of the justifying typewriters. The copy is made into a photo-engraving; but instead of the conventional zinc, the plates are made of light-weight magnesium. The magnesium plates are then used in the printing press. Entirely bypassed, in the process, are a number of steps ordinarily used in newspaper production: linotyping, stereotyping, makeready, and other procedures. The cost of producing a newspaper would be thereby greatly reduced—if the powerful printing trades unions allowed such a paper to publish in large cities. The process would also significantly affect all advertisers. To place advertisements, it would not be necessary to prepare duplicate engravings, electrotypes or mats for each publication, as at present; the advertiser would send the publication only a proof of the advertisement.

While they are an integral part of the Higgins process, magnesium plates are

Sanding Waxing Scrubbing Polishing Machines

Our machines are standard equipment fully guaranteed over 50 years of successful floor machine manufacture built into every machine — one of which will meet your requirements.

Write or phone at our expense for particulars today

TELEPHONE MONroe 5732

Manufacturers
of the Most Complete Line of Floor
Machinery in the World



LINCOLN-SCHLUETER
FLOOR MACHINERY CO., INC.
1250 W. VanBuren St.
CHICAGO 7, ILLINOIS

MANUFACTURERS
of

*Knit
Underthings*

for

**WOMEN & GIRLS
AMERICAN MAID CO., INC.**

847 W. Jackson Blvd., Chicago 7
HAYmarket 2765

SPRINGS

Coiled Springs—Flat Springs
Wire Forms—Small Stampings
Liberal Engineering Service
Very Prompt Deliveries
Send Us Your Inquiries

ADVANCE SPRING CORPORATION
1749-55 Carroll Ave., Chicago 12
SEEley 3447



**WITTEK
HOSE CLAMPS**

*For Leakproof
Hose Connections*

WITTEK MANUFACTURING COMPANY
4305-15 West 24th Place, Chicago 23, Ill.



REMOVAL OF
MACHINERY FOUNDATIONS
SALAMANDERS
SLAG DEPOSITS
CONCRETE STACKS
MASONRY OF ALL DESCRIPTIONS

CUTTING DRILLING
CHIPPING AND CHANNELING
BY
COMPRESSED AIR
OR
DYNAMITE

CHICAGO
CONCRETE BREAKING Co.
E. GRAY, Pres.
7737 So. Chicago Ave.
Chicago 19
BAYport 8400

CULLMAN SPROCKETS

For
Roller Blocks and
Silent Chains
Over 50,000 in Stock.

Special Sprockets Made
to Order.

Also
Speed Reducers—Lathe
Drives

Send For Catalog

CULLMAN WHEEL CO.
BUCKingham 2800
1331 ALTGELD ST. CHICAGO 14



UNDERWOOD ELECTRIC & MFG. CO. INC.

Radio Parts &
Electronic Equipment

3120 GRAND AVE.
CHICAGO-22
KEDZIE 4026

receiving considerable attention in their own right. Dow Chemical Company has developed a photo-engraving magnesium alloy which, in newspaper page size, weighs only one pound. The magnesium plates can be turned out faster than zinc plates, because the acids used to etch plates work on magnesium faster than they do on zinc. The thin magnesium plates can be bent directly around a press cylinder, thus eliminating stereotyping now in use on most papers to make the curved plates used on high-speed presses. Other advantages claimed for magnesium plates are greater press speed and less wear on the press.

"Scented Ink" Yet!

Magnesium plates can find many other uses in addition to newspaper production. According to Dow Chemical, producers of magazines, telephone directories and books, among others, are studying the new methods. Dow, incidentally, employed another comparatively new printing trick in a recent issue of the company's house organ. The issue, which carried an article about aromatic chemicals and their expanding uses, was entirely printed with a scented ink to emphasize the effect of the principal article.

In addition to magnesium plates, another new engraving process has recently been perfected. This device, manufactured by Fairchild Camera and Instrument, allows photo-engravings of photographs to be made by unskilled workers in a matter of minutes. Conventional photo-engraving processes require a corps of skilled technicians and an engraving takes an hour or longer to make.

The new direct engraver will turn out, on a plastic plate, a one-column newspaper engraving in less than four minutes, and requires no cameras, chemicals, or other equipment except a device that looks like a small metalworking lathe. The machine has two cylinders, on one of which the photograph to be reproduced is fastened. The photograph is "scanned" by the photo-electric cell, which is in turn geared to a metal stylus. The heated stylus is fastened close to the other cylinder, on which a plastic plate is fastened. As the scanner moves over the photograph, it moves the stylus in synchronization, and the stylus burns small depressions in the plastic plate—producing the engraving ready for use in a printing press. At present the machine produces only halftone engravings with a coarse screen, suitable for newspaper use. The company, however, is working on a machine that will turn out fine-screen halftones, of the type used in magazine and other fine printing. Several dozen of the Fairchild machines are already in use by newspapers. The company plans to rent the machines for \$160 a month.

If skilled printing craftsmen were not

Thrill to the Taste...



THE TOASTED ALMOND BAR

Just sink your teeth through that extra thick, pure milk chocolate coating . . . packed with crunchy-fresh, whole, toasted almonds . . . all over a snow-white nougat center that is creamy-rich and smooth. For the finest quality candy bar of them all, just try



CARAVETTA FOODS

Successors to Ehrat Cheese Co. Inc.
FOOD SPECIALTIES
33-35 W. KINZIE ST. CHICAGO 10
SUPERIOR 5737

For the best in **MUSIC** and
ENTERTAINMENT for all occasions
Phone Miss Gamble, STAt 7566
TRANS AMERICA MANAGEMENT, Inc.
203 N. Wabash Ave. Chicago 1

ILLINOIS TRAVELING MEN'S HEALTH ASSOCIATION

*Broad and Liberal
Health and Accident Insurance
For All Preferred Risks*

R. F. CAVENAUGH, *Secretary*
332 S. Michigan Ave.
Chicago 90, Illinois

It's the real thing



**YOU TRUST
ITS QUALITY**

DRINK
Coca-Cola
TRADE-MARK



**THE COIN-OPERATED COOLER
FOR COCA-COLA.** The coin-operated cooler is in service in offices and factories where people work. Business management has discovered that these coolers bring a moment of relaxation—the pause that refreshes with ice-cold Coca-Cola—within a few steps of thirst, promoting the efficiency and contentment of workers.

BOTTLED UNDER AUTHORITY OF THE COCA-COLA COMPANY BY
COCA-COLA BOTTLING CO., OF CHICAGO 19, ILL.

already giddy from the foregoing developments, the Teletypesetter would be the final stroke. This machine, made in Chicago, operates like an ordinary typewriter, but produces a punched tape instead of type copy. The tape is fed into an attachment on a Linotype or Intertype machine, and operates the machine automatically. The tape operation produces type at about twice the rate of manual operation, and one man can keep a number of Linotypes going; a separate operator is not needed for each machine. Non-union newspapers in several cities are using Teletypesetters to cut costs.

Simultaneous Printing

The Teletypesetter can also be operated by "remote control." The keyboard part of the equipment can be in one city, and the typesetting machine in another. Chain-operated newspapers, in particular, find this method effective. Teletypesetter chains that cast type in several cities simultaneously are in use in Illinois, Texas, and Arkansas. A national magazine, *TIME*, is printed simultaneously in three cities; in all three, type is set automatically by a tape punched in New York. In the case of *TIME*, however, the ITU has required that experienced linotype operators handle the work so that no jobs are lost through the use of the Teletypesetter.

An executive of a leading Chicago paper envisions the day when the wire services—such as the Associated Press and the United Press—will send out part of their reports, at least, to all member papers by Teletypesetter. At present, newspapers receive the reports on Teletype machines, and the typewritten copy is passed on to the Linotype operators for setting. The Teletypesetter would eliminate the need for Linotype operators on wire service copy. One obvious drawback, of course, is that there would be no opportunity for individual newspapers to choose the articles they wanted to use, or to edit them; but on certain standard material, such as market reports, the method would involve little difficulty.

What will be the results of the ferment of inventiveness in the graphic arts?

When improved typewriter-like composing machines and simplified presses are available, some printing executives fear a greater shift by business firms to the production of their printing needs. Many companies already operate their own printing plants; others have been restrained by the complexity of the equipment needed, its cost, and the need for skilled workers. With devices that can be operated by stenographers or office boys after a brief training period, these obstacles will be removed.

The new printing devices also make it feasible for advertisers to prepare their own advertisements for reproduction in newspapers and magazines. At present, many advertisers or advertising agencies

use outside compositors to set type for their ads. The new composing machines may lead advertisers to do this work themselves. Heavy retail advertisers such as Marshall Field and Company and Jewel Tea Company are already experimenting with typewritten and hand-lettered advertising copy for reproduction by photo-engraving.

On the other hand, the introduction of many new technological shortcuts in the printing industry should help lower the cost of printing—which has been climbing by leaps and bounds. And, if costs can be cut, it is equally logical to expect that many jobs now turned out on office duplicating machines or similar devices will be handled by commercial printers.

All of these assumptions, of course, ignore the unions in the graphic arts fields. In the past, these unions have resisted many new devices. The future outlook for printing, therefore, depends largely on the power that the skilled craftsmen now in the printing field are able to exert.

In any case, many of the new methods and devices are certain to be put to use. They have proven their ability to cut the cost of printing, to boost its quality, and to speed its production. And, in the long run, technological advances have almost invariably overcome any artificial barriers placed in their path.

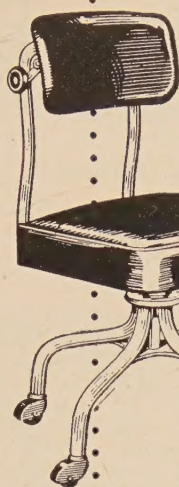
Office Layout

(Continued from page 26)

asphalt, cork and rubber tile usually undersell carpeting, and save on cleaning costs. Carpeting still may be used to offset a harsh bare-floor effect or as means of separating office sections in open work areas. The arrangement of office furniture also may perform this task.

Office decorators prefer small, useful pieces of equipment instead of mammoth desks and side-pieces. They want filing cabinets to look like home library cabinets in executive offices. They want streamlined and functional furniture rather than period pieces. Although metal furniture rates highly for general office use, metal has little chance of supplanting wood's natural beauty in executive quarters.

Though their demands are accelerating the modernization trend, office planners do not condemn all layouts that run counter to their principles. When an office has developed its own personality, major change may be harmful. And many a canny, tight-fisted businessman has figured out the most efficient office set-up without the aid of designers, and their charts and patterns. As one engineer-architect put it, "the office is the face of a business, and we are mighty careful with our plastic surgery."



**Girls work faster...
more happily with**

Easyrest

*We gladly let you have an
Easyrest on 2 Weeks Free
Trial.*

Every girl wants a posture chair that's really comfortable...and one that won't snag her best nylons. A wise employer will give her Easyrest. She can adjust it in a jiffy to the most restful sitting posture. The cushion seat is upholstered over 24 coiled springs for maximum softness and durability. Cuts fatigue, increases efficiency. You'll find Easyrest today's outstanding value in posture chairs, **\$24.50**

SEE

Easyrest

AT

**S P A K &
NATOVICH**

INC.

30 S. WELLS STREET, CHICAGO

FIN. 2233

WOOD AND STEEL FURNITURE • EXECUTIVE DESKS
CONFERENCE DESKS • DIRECTORS' TABLES • CHAIRS • BOOK-
CASES • DAVENPORTS • CLUB CHAIRS • FILING CABINETS

**CHICAGO
ELECTRIC**

REBUILT OR NEW

POWER EQUIPMENT

Whether it's but a small motor or a giant motor-generator set you need, you'll find the ideal answer to your equipment problems at Chicago Electric Co. Boasting the nations largest and most complete of rebuilt and new power equipment Chicago Electric is prepared to furnish any size unit—for any size job. Its newly modernized plant and facilities plus its skilled craftsmen and engineers all go into making Chicago Electric's service to American industry outstanding. You can save time, trouble and money by specifying Chicago Electric Rebuilds. And remember they're guaranteed same as new... why not investigate *today*.

**ENGINEERS REBUILDERS AND DISTRIBUTORS OF FINE
EQUIPMENT SINCE 1910**

MOTORS
GENERATORS
M.G. SETS

TRANSFORMERS
COMPRESSORS
SWITCHBOARDS

PUMPS
DRIVES
HOISTS

CHICAGO ELECTRIC COMPANY

1318 W. CERMAK RD. • CHICAGO 8, ILL. • CANAL 2900

Advertisers Index—March, 1948

A	
Ace Carton Corp.	110
Accurate Spring Mfg. Co.	52
Ackermann, G. A. Printing Co.	113
Acme Equipment Co.	114
Acme Metal Products Corp.	95
Acme Model Works	60
Admiral Corporation	124
Advance Spring Corp.	69
Advertising Initiative	103
Advertising Metal Display	41
Aetna Ball Bearing Co.	112
Aetna Insurance Company	53
Aldens, Inc.	40
Aldis & Company	94
Allied Photo Engravers	87
Allyn, A. C. & Company	37
American Brake Shoe Co.	124
American Maid Company	77
American National Bank of Chicago	74
American Plano Lith Company	40
American Stevedores Co., Inc.	71
Amling Company	38
Andrews & Drummond	69
Anetsberger Bros., Inc.	102
Apple Cole Co., The	92
Appleton Electric Company	101
Archibald, E. L. Company	74
Arrow Petroleum Co.	108
Associated Bag & Apron Co.	106
Athey Products Corp.	129
A-Z Letter Service	

B	
Badger Tool & Mfg. Co.	88
Batney & Childs	101
Battye Franklin Corp.	94
Bell Savings & Loan Asso.	74
Berthold, Gus Electric Co.	38
Besly, Chas. H., Co.	70
Black Forest Restaurant	122
Borden Company, The	82
Borg-Warner Corporation	I. B. C.
Bowman Dairy Company	68
Box 720	46
Boynton, A. J. & Co.	91
Brad Foot Gear Works, Inc.	90
Bradshaw-Praeger & Co.	110
Briggs & Turivas, Inc.	89
Brower Paper Co.	56
Buda Co., The	39
Burlington Lines	30

C	
Camp, J., Beidler Co.	118
Canadian Bank of Commerce	65
Caravetta Foods	125
Caspers Tin Plate Co.	50
Central Manufacturing District	4
Central Steel & Wire Co.	106
Chicago Belting Company	I. F. C.
Chicago Concrete Breaking Co.	125
Chicago Electric Company	127
Chicago Extruded Metals Co.	93
Chicago Lock Company	66
Chicago Name Plate Co.	129
Chicago Offset Printing Co.	129
Chicago Planograph Co.	129
Chicago Pulley & Shafting Co.	122
Chicago Rawhide Mfg. Co.	27
Chicago Steel Service Co.	83
Chicago Steel Tank Co.	104
Chicago Switchboard Co.	93
Chicago Tribune	B. C.
Chicago Wheel & Mfg. Co.	129
Chicago Wilmington Franklin Coal Co.	105
Clearing Industrial District	3
Clements Mfg. Co.	84
Coca Cola Bottling Co., of Chicago	126
Commercial Discount Corp.	101
Commonwealth Edison Company	6
Concord Radio	36
Congress Tool & Die Works	40
Continental Can Co., Inc.	68
Critchell Miller Insurance Agency	129
Crane Company	44
Croname, Inc.	97
Crown Office Supply Co.	110
Cullman Wheel Company	125
Curtis Piano Course	129

D	
Danly Machine Specialties, Inc.	61
De Leuw, Cather & Co.	102
Dearborn Chemical Co.	62
Depue, Oscar B.	99
Delta Air Lines, Inc.	60
Diamond T Motor Car Company	33
Diener, Geo. W. Mfg. Co.	44-105
Dixon, Arthur Transfer Co.	86
Doering, C. & Son, Inc.	101
Donahue Steel Products Co.	85
Donnelley, Reuben H. Corp.	1
Donnelley, R. R. & Sons Co.	51
Dooley-St Arnaud Electric Co.	101
Duffin Iron Company	102

E	
Economy Fuse & Mfg. Co.	120
Efengee Electrical Supply Co.	36
Englewood Electrical Supply Co.	111
Ericsson, Henry Co.	99
Excel Electric Service Co.	113
Excello Press	121

F	
Feltman & Curme	114
Fisher-Busse Co.	64
First Federal Savings	78
Fort Dearborn Lithograph Co.	102
Franklin Bindery, The	88
Fry, George & Associates	74
Fulton Asphalt Co.	129
Furrer, Emery C.	101

G	
Gatke Corp.	52
Gear Specialties	110
Gerrard Steel Strapping Co.	91
Gibson, William D., Co., Inc.	95
Graf, L. J. Construction Co.	101
Great Atlantic & Pacific Tea Co., The	103
Great West Life Assurance Co.	114
Greyvan Storage, Inc.	109
Griffith Laboratories, The	118
Gruendel, Geo. H., Co.	114

H	
Haber Screw Machine Products Co.	53
Haines Company, The	120
Hannifin Manufacturing Co.	118
Hansen, A. L. Mfg. Co.	97
Hargrave Secret Service	129
Harrington, J. J. & Company	129
Hart & Whetston	102
Harvey Metal Corporation	129
Hebard, F. H., Co.	129
Henry Valve Co.	121
Hild Floor Machine Co.	66
Hill Clothes	86
Hogan & Farwell	97
Horder's Inc.	81
Hotel Pere Marquette	124
Hudson Screw Machine Products Co.	89
Hunt, Robert W., Co.	98
Hyre Electric Company	112

I	
Illinois Association of Small Loans Co.	98
Illinois Coil Spring Co.	63
Illinois Commercial Men's Association	104
Illinois Northern Utilities Co.	6
Illinois Traveling Men's Health Association	126
Indiana State Chamber of Commerce	32
Irelands	123
Iron Fireman Mfg. Co.	9
Ivanhoe, The	123

J	
James, D. O. Manufacturing Co.	57-129
Jewel Paint & Varnish Co.	99
Johnson, J. Oliver Seed Co.	80

K	
Kedzie Protective Patrol	129
Kirchman-Dierks Co.	102
Klein, Mathias & Sons	80
Kling Brothers Engineering Works	129
Kuppenheimer, B. & Co., Inc.	87

L	
Lake Michigan Mortgage Co.	81
Lanahan, M. J., Inc.	88
Lang, Weise & Cella	102
L'Hommedieu, Chas. F., Co.	73
Lasker Boiler & Engineering Co.	76
Lincoln-Schlueter Floor Machinery Co.	124
Liquid Carbonic Co., The	124
Live Stock National Bank	72

M	
Madden Equipment Co.	94
Marchant, Geo. F., Co.	64
Mars, Incorporated	125
Marsh & McLennan, Inc.	95
Mayer, Oscar, & Co.	45
Meilicke Systems, Inc.	109
Merchandise Mart, The	42
Merchants Matrix Cut Syndicate	129
Mercil B. & Sons Plating Co.	54
Mercoid Company	11
Metropolitan Electrical Supply Co.	129
Metropolitan Paving Co.	102
Midstates Auto Electric Co.	74
Millers National Insurance Co.	107
Milwaukee Road, The	47
Moore, Case, Lyman & Hubbard	96
Motorola, Inc.	90
Moore-McCormack Lines	55
Mountain Valley Water Co.	40
Mueller, V., & Co.	102

N	
National Bank of Commerce	72
National Pesticide Co.	129
Neilsen, S. N.	64
Nicoud Manufacturing Co.	124
North American Life Insurance Co.	86
North Town's Check Cashing Service	116
Nufer's Gene Restaurant	122

O	
Office Furniture Clearing House	129
Olson, Samuel Mfg. Co., Inc.	70
One N. La Salle St. Bldg.	49

P	
P. & W. Farm Machinery Co., Inc.	107
Parisian Novelty Company	34
Partridge & Anderson	115
Pennoyer Merchants Transfer Co.	85
Percy Wilson Mortgage Co.	75
Personnel Laboratory, The	102
Phipps Industrial Land Trust	100
Pick, Albert Co., Inc.	115
Press, Jacob Sons	116
Printing Products Corp.	67
Private Tel-Communications, Inc.	8
Public Service of Northern Illinois	6

R	
Randall Graphite Bearings Inc.	102
Redfield Personnel Service	46
Red Star Inn, The	122
Regal Instrument Co.	95
Reliable Translation Service	129
Reliance Traffic Service	102
Roth Rubber Co.	98

S	
Sanderson & Porter	102
Santa Fe System	117
Sauter, Fred	112
Savoy Drug & Chemical Co.	123
Schreiner Steel Products Co.	87
Sievert Electric Company, Inc.	62
Skilsaw, Inc.	84
Snow, Fred A., & Co.	101
South Chicago Coal & Dock Co.	96
Spak & Natovich, Inc.	127
Spitzer's Office Furniture House, Inc.	58
St. Paul Federal Savings	115
St. Regis Paper Company	28
Standard Galvanizing Co.	108
Standard Pharmacal Co.	123
Standard Transformer Co.	82
Starkweather & Shepley, Inc.	97
Sterling Drum Co.	102
Sterling Lumber & Supply Co.	73
Sternstien Bros.	83
Stewart-Warner Corp.	89
Stewart, James Corp.	76
Strom Steel Ball Co.	82
Sturm-Bickel Co.	96
Sudler & Company	88
Superior Flake Graphite Co.	118
Superior Sleeprite Corp.	120

T	
Territorial Information Dept.	6
Tri-Par Sound Systems	92
Trans America Management	125

U	
Underwood Electric Mfg. Co.	125
United Air Lines, Inc.	2
United Camera Co.	71
United States Steamship Lines	119

V	
Van Vlissingen, J. H., & Co.	100
Verson Allsteel Press Co.	50

W	
Wabash Railroad Company	59
Wagner, Arthur Co.	79
Washington National Insurance Co.	93
West, Richard H., & Co.	75
Western United Gas & Electric Co.	6
Western Rust-Proof Co.	71
White, Robert F., & Co.	10
Wickland, A. A., & Co.	78
Wilcox, W. W., Mfg. Co.	110
Wilson, J. H., Supply Co.	129
Witteck Mfg., Co.	124

Z	
Zero Water Softener	102

Commerce Classified

MARKET PLACE

Executives—Office Managers—Personnel Directors—Purchasing Agents—Buyers
You'll Profit from Reading and Answering these Advertisements

Advertisements in this section: 15c per word—one time; 10c per word—12 times. Minimum—15 words. Display Classified \$10 per inch—one time; \$9.00 six times; \$8.00 twelve times; 1/4 inch \$6.00 one time; \$5.50 six times; \$5.00 twelve times. Maximum Display Classified Space One Inch. Copy must be received by 15th of previous month to be inserted under proper classification. Terms—Payable in advance unless credit references are approved. Address Classified Department—COMMERCE—One North LaSalle Street—Chicago, Illinois.

BOXING AND CRATING

F. H. HEBARD CO.
Export and Domestic Industrial
Packing, Boxing and Crating
Our Expert Service Saves You Money.
623 S. WINCHESTER • CHICAGO 12
SEELEY 0282

BRASS FORGINGS

IMPROVE YOUR PRODUCT AND SAVE
MACHINE EXPENSE BY USING OUR
BRASS FORGINGS
THE HARVEY METAL CORPORATION
74th & S. Ashland Ave.
Hemlock 4400 Chicago 36, Ill.

DETECTIVE AGENCIES

HARGRAVE SECRET SERVICE, General
detective business transacted everywhere.
Office open day and night, 145 North Clark
Street, Central 1500, Chicago 2.

ELECTRICAL SUPPLIES

NEW CATALOGUE

Just Off The Press
SUPPLIES AND APPARATUS
Phone or Write for Copy

Metropolitan Electrical Supply Co.

Phone STAtE 4930
20 North Jefferson Street Chicago 6, Illinois

EXTERMINATORS



DEL. 3932
EXTERMINATING
DISINFECTING
FUMIGATING
Chicago License No. 1
Est. 1898
PESTICIDE CO. 356 N. STATE ST.

FLOORS—INDUSTRIAL

FULTON ASPHALT CO.

"Since 1870"

Asphalt Mastic Floors
Acid Proof Mastic Floors
Industrial Composition Floors

165 W. Wacker Drive, Chgo. 1 Ran. 1760

GEARS

**SINCE 1888—Makers of
Every Type of GEAR and
GEAR REDUCER**

D. O. JAMES MANUFACTURING CO.
1140 W. Monroe St., Chicago
Telephone CANal 1800

GRINDING WHEELS

Headquarters Since 1895 for
**MOUNTED WHEELS and
SMALL GRINDING WHEELS**

A Shape and Size to Finish every kind of
Material Faster and Better.

CHICAGO WHEEL & MFG. CO.
1101 W. Monroe St., Dept. C., Chicago 7
Phone CANal 6155

**CRITCHELL
MILLER
INSURANCE
AGENCY**
Est. 1868
All Forms Insurance
WABash 0340 175 W. Jackson Blvd.

LITHOGRAPHERS—OFFSET

CHICAGO OFFSET PRINTING CO. Fine
color lithography by the offset process.
610 West Van Buren St., Chicago 7, Illinois.
Telephone STAtE 3694.

LETTER SERVICE

A-Z LETTER SERVICE

ESTABLISHED 1918

Mimeographing ★ Multigraphing
Planographing ★ Multilith
Addressing ★ Mailing
Direct Mail Campaigns

Any Size Order Handled Promptly

155 N. CLARK DEARBORN 1891

MACHINERY

KLING BROS. ENGINEERING WORKS

GENERAL MACHINISTS

Medium and Heavy Work—Special Machinery
Structural Bending—Pattern Shop—Repairs

1320 N. Kostner Ave., Chicago 51, Ill.

Telephone Capitol 4200

MATRICES

Merchants Matrix Cut Syndicate

J. BRUCE ALLEN, Pres.

Mfrs. Highest Grade Newspaper Mats & Stereotypes—
Wet Mats—Dry Mats—Black Mats

Quality and Service keep our Product sold
Complete Night Service, without overtime charge to
regular patrons.

538 S. Clark St. Chicago 5
HARison 6621

NAME PLATES

For your urgent needs. Name Plates, Dials,
Panels, Etched—Engraved—Printed. Chi-
cago Name Plate Co., 1831 W. Columbia
Av., Chicago 26, Ill. Telephone AMB. 9447.

OFFICE FURNITURE—NEW AND USED

Desks, Chairs, Tables, Filing Equipment.
Office Furniture Clearing House, 236 W.
Lake St. DEARborn 3456.

PIANO COURSES



Curtis Piano Course
(Class and Individual Instruction)
Superior Piano Text Books
and Fundamental Piano
Teaching

(Pre-School through High School
Grades)
A Chicago Institution Since 1925
Serving in Public, Parochial and
Private Schools
Conservatories and Private Studios
25 E. Jackson Blvd.—Chicago 4
Har. 0730

PLANOGRAPHING

PHONE today Monroe 9721 for reasonable
prices on planograph printing. CHICAGO
PLANOGRAPH CORPORATION, 1220 W.
Van Buren St., Chicago, Illinois.

REAL ESTATE—INDUSTRIAL

Industrial Real Estate

J. J. HARRINGTON & CO.

Since 1907

7 S. Dearborn St. • Chicago 3
Ran. 2311

TIME CLOCKS

TIME RECORDING DEVICES

For Pay Roll and Job Cost Records.
When Time Recording Is Your Problem,
Remember

**J. H. WILSON SUPPLY
COMPANY**

EST. 1908

216 West Jackson Blvd. Chicago 6, Ill.
FRanklin 4025

TRANSLATION

RELIABLE TRANSLATION SERVICE

Spanish
French
German
Italian
Portuguese
etc.

CORRESPONDENCE—DOCUMENTS
CIRCULARS—TEXTS—ARTICLES
CATALOGS—ADVT. COPY—ETC.
TRANSLATING—INTERPRETING
PROOFREADING—EDITING

30 W. WASHINGTON • STAtE 1693

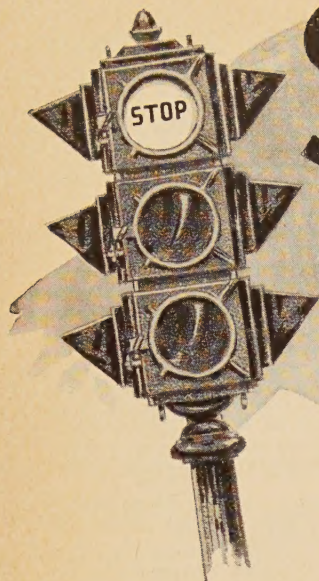
WATCHMEN

UNIFORMED GUARDS For Factories,
Warehouses, Etc.
Licensed and Bonded Under State of Ill. Established 1919

CARS EQUIPPED WITH TWO WAY RADIO

KEDZIE PROTECTIVE PATROL

301 So. Kedzie Ave. CHICAGO 12
Phone Day and Night—KEDzie 5250



STOP ME-IF—

As the customer walked into the drug store, he noticed that the druggist was playing checkers with a great police dog. The druggist was deeply engrossed in the game—as was the dog—and neither noticed that any one had entered the store.

The customer, amazed, watched. The police dog was very serious and studied the board for many minutes before making his moves. He could see that the dog was an excellent checker player.

Finally, the customer couldn't contain himself any longer: "Great Scott!" he cried. "That's the smartest dog I've ever seen. He's a genius!"

The druggist looked up, and calmly replied: "He ain't so smart. I beat him three out of four games!"

* * *

After lavishing untold wealth in money, furs, cars and jewelry on a beautiful blonde show girl, a certain old New York playboy finally made her his wife.

"That old relic!" an acquaintance hooted. "Do you suppose that could be a love match?"

"Heck, no," rejoined another. "The old coot married her for his money."

* * *

"George, are you spitting in the fish bowl?"

"No, mother, but I'm coming close."

* * *

The fight was dull. The two fighters did nothing but circle each other. Not a punch was tossed. Then, out of the silence, a spectator howled:

"Hit 'em ya bum! You got the wind wit' ya!"

* * *

"Must I stick it on myself?" asked the woman as she purchased a postage stamp.

"Not at all, madam," replied the polite clerk. "It will accomplish much more if you stick it on the envelope."

* * *

Junior (at 9 a.m. last Sunday): "Dad, did you go to Sunday School when you were a little boy?"

Father (smugly): "I sure did. Never missed a Sunday."

Junior (turning to his mother): "There now, Mother. Don't you see? It won't do me any good either."

Grandpa Morgan failed to appear for supper. Young Tolliver, sent into the Ozark woods to search for him, found his grandpa standing in the bushes.

"Gettin' dark, Grandpap."

"Yep."

"Ain't ye hungry?"

"Yep."

"Wal, air ye comin' home?"

"Nope, standin' in a b'ar trap."

* * *

"Did you get home all right after the party last night?"

"Fine, thanks, except that as I was turning into my street, some idiot stepped on my fingers."

* * *

Golfer: "You must be the worst caddie in the world."

Caddie: "Hardly, sir. That would be too much of a coincidence."

* * *

"What's the cat's name?"

"Ben Hur."

"How'd you happen to choose that name?"

"We called him Ben till he had kittens."

* * *

Doctor: "The best thing for you to do is to give up drinking and smoking, get up early every morning and go to bed early every night."

Patient: "What's the second best?"

The country doctor came home all worn out and prepared for a good night's sleep, but no sooner had he retired than the phone beside his bed buzzed shrilly. He nudged his wife: "Listen, Ma, see who it is; say you expect me soon, or anything you think of."

The wife answered the phone. "Doctor is not at home," she said.

"Well, this is Mrs. Jones," rattled a voice in the receiver. "I got a pain and I want to see him as soon as he comes in."

The doc whispered some instructions to his wife, which she repeated to the would-be patient. "Do that, and I'm sure you'll soon feel all right."

"Thanks very much," said the lady on the phone, "but tell me, is that gentleman who seems to be with you qualified to advise me?"

* * *

Student: "To whom was Minerva married?"

Professor: "My boy, when will you learn that Minerva was the Goddess of Wisdom? She wasn't married."

* * *

Jimmy: "Aw, you're afraid to fight."

Johnnie: "Naw, but if I fight my mom'll find out and spank me."

Jimmy: "How'll she find out?"

Johnnie: "She'll see the doc going into your place."

* * *

When the revenuers burst from the bushes, the gangling hillbilly began running with such speed that the lawmen stood in slack-jawed awe and watched him disappear.

Long after the revenue men had left, he still had not returned to his cabin. Hours became days and his friends were worrying.

At last, on the fifth day, he stumbled in, a sorry sight. He was bearded and fatigued, and his clothes were spattered with mud.

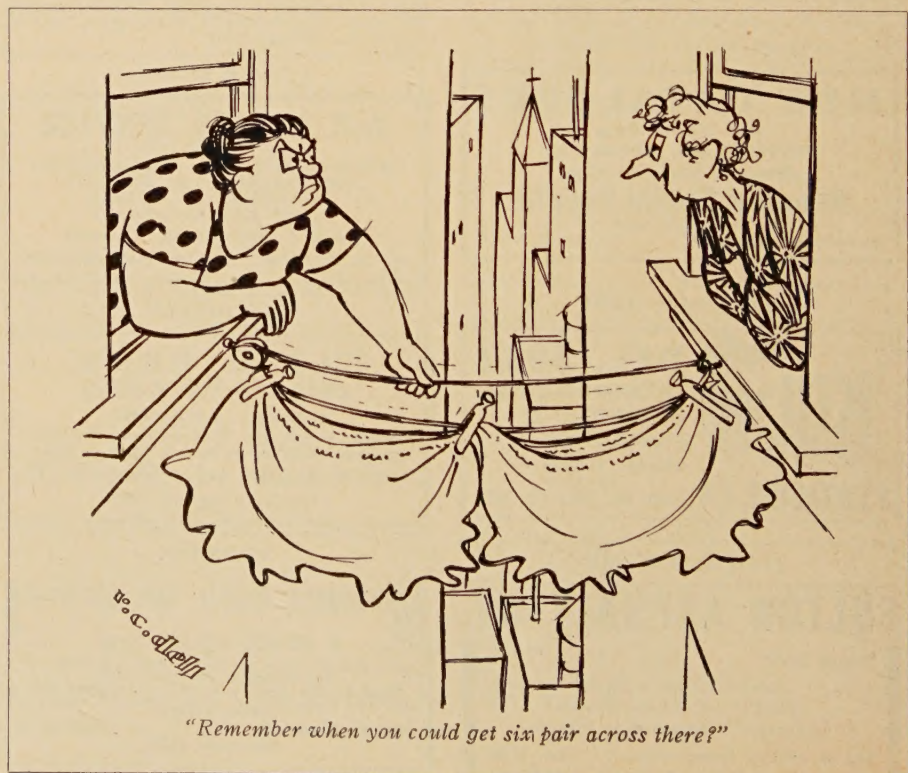
"Where you been, Ed?" someone asked. He sighed wearily. "I been comin' back," he said.

* * *

"Sir, may I marry your daughter?"

"Have you seen my wife yet?"

"Yes, sir, and I still love your daughter."



"Remember when you could get six pair across there?"